

Communications (Pro edition only)

Studio can communicate with peripheral devices via TCP communications, a serial port, USB/serial contact closure boards, and an Axia Livewire port. *Studio* can control a peripheral device such as an audio switch, and a peripheral device can control *Studio*, such as a satellite receiver or mixer console.

This options page is divided into 3 tabs - [TCP](#) (commands sent via a LAN), [Ports](#) (hardware ports and boards), and networked [Axia Livewire](#) devices. References to TCP below also refer to UDP.

Studio Commands: The following commands may be sent to Studio via TCP, UDP, HTTP*, a serial port, or used inside a script. The associated *Closure Function* in the table is the name used in the drop down selections in the [Contact Closure Input](#) and [Axia GPIO](#) settings. Several of these functions are also available from the [Controls menu](#).

Multiple commands may be specified by separating with a comma. In this case each command result will be returned on separate lines followed by a carriage return/line feed. Any commands that use an equal sign "=" should not be sent with other commands on the same line.

All commands are case insensitive.

Command	Closure Function	Description
Play	Play	Identical function to the Play button.
Stop	Stop	Stop play. The next track in the <i>Playlist Viewer</i> will be selected ready for play.
Instant Stop	Instant Stop	Stops all audio instantly with no fade.
Skip	Next Track	Starts the next track in the <i>Playlist Viewer</i> . If a track is currently playing, this command will fade out the track over a short period and the next track will be started. If play is stopped, the next track in the <i>Playlist Viewer</i> is selected.
Overlap Next	Overlap Next	Starts the next track without fading the current track.
AutoOn	Automate On	Switch Automation mode on if it is off. This will start play if play is stopped.
AutoOff	Automate Off	Switch Automation mode off if it is on.
Auto	Automate Toggle	Toggle automation between on and off.
MicOn	Mic On	Switch the Mic on if it is off.
MicOff	Mic Off	Switch the Mic off if it is on.
Mic	Mic Toggle	Toggle the Mic between on and off.
LineOn	Line-In On	Switch the Line-in on if it is off.
LineOff	Line-In Off	Switch the Line-in off if it is on.
Line	Line-In Toggle	Toggle the Line-in between on and off.
RecordOn	Record On	Switch Record To File on if it is off.
RecordOff	Record Off	Switch <i>Record To File</i> off if it is on.
Record	Record Toggle	Toggle <i>Record To File</i> between on and off.
ClockSync	Synchronize Clock	Synchronizes the computer clock to a specific time set in the Advanced options .
JumpTo1/2	Jump To 1/2	Jump the play position to a *Jump break note code above or below the current play position in the current hours playlist.
JumpNext	Jump Next	Jump the play position to the next *Jump break note below the current play position in the current hours playlist.
JumpBack	Jump Back	Jumps back to the track located just after the track that was playing during the last JumpTo1, JumpTo2, or JumpNext commands above. This may be useful to play a different set of files during a rain delay in live network programming, for example.
ClearPlaylist	(serial,script, TCP only)	Executes Clear All Playlists in Studio's File menu.
AppendPlaylist	(serial,script,	Executes Append Next Playlist in Studio's File menu.

	TCP only)	
Pause	(serial,script,TCP only)	Toggle between paused and playing.
Mute	(serial,script,TCP only)	Toggles audio output to the soundcard on and off. DSP's and stream encoders will not be affected.
Deselect	(serial,script,TCP only)	Same as ESC key. Deselects all tracks in the Studio playlist. May be useful before AutoOn to have tracks start playing from the correct hours playlist.
SelectIndex	(serial,script,TCP only)	Selects or returns the current selected track in the Playlist Viewer by index number, where 0 is the first Hour Marker. eg. SelectIndex=2 will select the 2nd track. If no track is selected, the command returns -1. Can also select previous and next track using SelectIndex=- and SelectIndex=+.
SelectTitle	(serial,script,TCP only)	Selects the first track matching a title. eg. SelectTitle=Drops Of Jupiter.
CurrIndex	(serial,script,TCP only*)	Returns the position index of the current track playing. If no track is playing, returns -1
LastIndex	(serial,script,TCP only*)	Returns the position index of the last track in the Playlist Viewer.
StartHourIndex	(serial,script,TCP only*)	Returns the position index of the first track in the current hours playlist.
EndHourIndex	(serial,script,TCP only*)	Returns the position index of the last track in the current hours playlist.
TrackInfo=	(serial,script,TCP only*)	TrackInfo returns a comma delimited list of track details for 1 or several tracks. The following parameters are required. <i>TrackInfo=this</i> (All tracks in the current hour) <i>TrackInfo=next</i> (All tracks in the next hour) <i>TrackInfo=all</i> (All tracks loaded in the Playlist Viewer) <i>TrackInfo=fromindex-toindex</i> (All tracks between and including the index numbers.) The information returned... <i>Index, TrackType, Artist, Title, Album, Duration, IntroTime, OutroTime, Category, Filename</i>
CheckToggle	(serial,script,TCP only)	Toggle the checkbox of the current focused item between checked and unchecked.
InsertNext	(serial,script,TCP only*)	Insert an audio file after the current track playing. Insertnextn=filename, where n=track type (0=song,1=spot) eg. InsertNext1=c:\emergency.wav
Run	(serial,script,TCP only)	Run an executable (exe, cmd, bat) file without waiting for the executable to finish. eg. Run notepad.exe "c:\temp.txt". Quotation marks are required around any parameters that contain spaces.
RunWait	(script only)	Run an executable (exe, cmd, bat) file and wait for the executable to finish before proceeding to the next script command.
Cart kFxx	(serial,script,TCP only)	Plays any of the 96 cart slots. The " Cart " prefix is optional and may be omitted. k = m for Main Carts, s for Shift Carts, c for Ctrl Carts, a for Alt Carts. xx = cart slot from 01 to 24. eg. Cart mF10 will play Main Cart 10 (F10 key in Studio). Cart F0 will stop any cart playing.
PlayFile	(serial,script,TCP only)	Plays any file using the cart player. eg. PlayFile c:\spots\spot1.mp3
CartFile	(serial,TCP only*)	Returns the name of the file playing in the cart player.
WaitForCart	(script only)	Wait for any carts playing to finish before proceeding to the next script command.
WaitFor xxxx	(script only)	xxxx = milliseconds. Wait for this length of time before proceeding to the next line in the script. eg. waitfor 1500 will wait 1.5 seconds.
ExitIfTime		Exit the script and do not process any further commands if the current time is included in the specified time range. Time ranges cannot span past midnight, but 2

<i>hh:mm-hh:mm</i>	(script only)	ExitIfTime commands may be used to achieve this result. eg. ExitIfTime 10:00-14:00 will stop executing the remaining lines in the script if the time is between 10am and 2pm.
<i>*break note code</i>	(script,TCP only)	Executes a break note code . eg. *H0 will set the Hour Markers option to <i>Ignore</i> . Codes which replace a break note with an audio file such as <i>*Time</i> for a time announcement, is also supported, with the file played using the cart player.
PlaylistFolder	(serial,TCP only)	Sets and returns the Playlist Folder setting in Studio. eg. PlaylistFolder=C:\Playlist.
TopUpFolder	(serial,TCP only)	Sets and returns the Top Up Folder setting in Studio. eg. TopUpFolder=C:\Other Folder. Use a semi-colon to separate multiple folders.
SearchFolder	(serial,TCP only)	Sets and returns the Search Folder option in Studio. eg. SearchFolder=C:\Other Folder. Use a semi-colon to separate multiple folders.
Search=	(serial,TCP only*)	Returns the results of a track search of the Search Folders . The syntaxes are: Search=artist title returns details of a specific song. (= pipe character). Search=*keyword* returns all songs containing this word in the artist or title. Search= returns all tracks in the library. Results are returned in the structure Artist Title Filename
Insert Request=	(serial,TCP only)	Adds a track to the Listener Requests dialog. eg. Insert Request=C:\Music\Beatles - Help.mp3 IP Address Name Location Flag The Name, Location, and Flag fields are optional. Flag=1 will force the track to be added even when the file doesn't exist in the Search Folders .
List Requests	(serial,TCP only*)	Lists the requests not yet played in the following structure. Date Time Artist Title Location
Requests Changed	(serial,TCP only*)	Returns 1 if the request list has changed since the last time Requests Changed was called, otherwise returns 0. This is likely only useful for website scripts to poll Studio every few seconds, and dynamically load List Requests above for the website visitor when it changes.
DelRequest=n	(serial,TCP only)	Deletes a request from the Listener Requests . n is the number of the request as it appears in the list starting with 0 for the first track.
HoldRequest=n	(serial,TCP only)	Places a request on hold in the <i>Listener Requests</i> .
TopRequest=n	(serial,TCP only)	Moves a request to the top of the <i>Listener Requests</i> list.
PlayRequest=n	(serial,TCP only)	Inserts and immediately plays a request from the <i>Listener Requests</i> .
Restart	(serial,TCP only)	Restarts the current playing track from the beginning.
Volx=y	(serial,TCP only)	Adjusts player x to volume y . y is 0 (silence) to 10000 (maximum). Players are 1=Main player, 2=VT player, 3=Cart player 1, 5=Microphone, 6=Line-In, 7=Mixer output, 8=Monitor output.
Volx	(serial,TCP only)	Returns the current volume set for player x
Last	(serial,TCP only*)	Returns the last track played "artist - title"
This	(serial,TCP only*)	Returns the current track playing "artist - title"
Next	(serial,TCP only*)	Returns the next track to play "artist - title"
LastSong	(serial,TCP only*)	Returns the "Last Main Track" from the Studio main window. Excludes short spots.
NextSong	(serial,TCP only*)	Returns the "Next Main Track" from the Studio main window. Excludes short spots.
Stat	(serial,TCP only*)	Returns a combination of five 0 's or 1 's, where 0 =off, 1 =on. Digit 1=playing, 2=automation, 3=mic, 4=line-in, 5=paused. For example... 10100 means Studio is playing, automation is off, mic is on, line-in is off, not paused.
Elap	(serial,TCP only*)	Returns the elapsed time of the current track in milliseconds
Rem	(serial,TCP only*)	Returns the remaining time of the current track in milliseconds

	only*)	
Temp	(serial,TCP only*)	Returns the current temperature, a comma, and "feels like" temperature if relevant.
Helo	(serial,TCP only*)	Returns "StationPlaylist Studio vn.nn"
Ver	(serial,TCP only*)	Returns just the studio version "n.nn"
User	(serial,TCP only*)	Returns the current Studio User
Lsnr	(serial,TCP only*)	Returns the current number of internet listeners followed by a "/" and the number of streams that appear to be offline. eg. 75/0
Log	(serial,TCP only*)	Returns the current days Studio log file
Logyymmdd	(serial,TCP only*)	Returns the Studio log file for the selected date. eg. Log140621 will return the log for June 21, 2014.
NP1	(serial,TCP only*)	Returns the Primary Output file in the Now Playing system.
NP2	(serial,TCP only*)	Returns the Secondary Output file in the Now Playing system.
Err	(serial,TCP only*)	Returns the last error if any
Errc	(serial,TCP only)	Clears the last error and stops flashing the Errors Occurred button.
(any name)	Run Script	Run a script file which may contain a number of the above functions. The file extension .scp must <u>not</u> be specified as part of the script name.

* These marked functions may also be executed via the [mini web server](#) when no authentication is configured. When a [Password](#) has been specified, all commands are available to the mini web server.

The syntax is:

http://ipaddress:port/?command. For example, http://192.168.1.100/?Helo

http://studio:password@ipaddress:port/?command. eg, http:studio:mypass@192.168.1.100/?AutoOn

Scripts: A script is a file containing any number of the commands above to be executed in a specific order. A script file is usually created using a text editor such as Notepad. A script filename must end in a **.scp** file extension, and the files placed into the [Scripts](#) subfolder under the StationPlaylist\Studio folder.

Two specific scripts are executed by Studio at startup, if they exist.

Startup.scp is executed every time Studio is loaded, either manually or after a computer reboot.

AutoStartup.scp is executed only when Studio is loaded after a computer reboot/login. It will not execute when manually loading Studio.

Any command sent via the serial or TCP port which does not represent a command in the table above will be regarded as a script filename. eg. Sending the text ABCDEF will attempt to execute a script named ABCDEF.scp.

To execute scripts via a *Contact Closure Input* port, the script filename must start with the letter **C** followed by the Input number and a **.scp** extension. eg. **C1.scp**. To execute a script from an *Axia GPIO* port, use *Axiadc.scp*, where *d* is the Input number 1 through 4, and *c* is the input closure number 1 through 5. eg. *Axia13.scp*.

Each command in the script file must be entered on a separate line. A script may execute another script.

Comments may be entered in scripts using // before the comment.

Example script:

```
Stop
Cart aF10 // play Alt Cart 10
WaitForCart
Cart sF02
WaitForCart
```

AutoOn

TCP Communications (Pro edition only)

Three TCP servers are built into Studio for communications with other software or devices.

UPnP Port Forwarding: When checked, Universal Plug and Play will be enabled for all 3 TCP servers. A UPnP router will be automatically configured to forward the selected ports to your Studio computer from the outside world.

If your router does not support this feature, you will need to configure the router manually to forward the selected ports to the local IP address of the computer running Studio.

TCP Server: Studio may be controlled via text commands sent via simple TCP, as listed in the [Studio Commands](#) table. Commands must be followed by a linefeed with an optional carriage return character before the linefeed.

The *TCP server* is also used in conjunction with a web server script to operate the online *Song Requester* feature below.

Select the TCP Port which Studio will listen on. The default of 443 may be changed to any valid unused port number.

Text may also be sent to a separate device via TCP using the [*TCP break note](#) code.

Send Response is optional text which will be sent back to the TCP client when the command has been received. Note that the response is sent even if the command is not supported.

IP Restriction: When an IP address is specified, only a connection from this IP will be accepted. This could be your web server IP when used only by the song requester. Multiple IP addresses may be entered, separated by any delimiter such as a comma or space. eg. 123.45.67.88,123.45.67.89

Song Requester:

This is a feature which incorporates the *TCP Server* described above, and a [PHP server side script](#) available for purchase from our website. The script provides the ability for a listener to search or browse your music library via your website, and request one to be played. The requested song is added to a [Listener Requests](#) window available from the *View* menu.

The [Search Folders](#) option on the *Folder Locations* options page determines the songs which are available for requesting using the script. Individual songs from these folders may be excluded from the search results by checking *Exclude from requests* in [Track Properties](#) on the *Categorization* tab.

If the *Search Folders* is empty, the request script reports "Requests are currently disabled" on the web page.

Listener Requests may also be added manually to the list via the [Insert Tracks](#) dialog. This may be useful for requests that are phoned or emailed in.

Requests made are logged in the [Played Log](#) and include the Artist, Title, Filename, IP address, and Name/Location if provided.

The requested songs may be inserted in the playlist automatically or manually. For automated insertion, insert a [*Request break note](#) in your rotations in *StationPlaylist Creator*, in the positions you will accept a request to be played. If a request exists, the break note will be replaced with the first requested song that complies with the settings below, and also the Studio [Track Insert Separation](#) settings on the *Advanced* options page.

Manual insertion of a request is available from the [Listener Requests](#) dialog.

Replace no request will insert a random track from the [Search Folders](#) or [Top Up Folders](#) when a [*Request break note](#) is executed, and no request is available to insert. Generally this option should be disabled when using the *Delete Following Song* option below.

Delete Following Song: When a request is inserted via a [*Request break note](#), and the next track in the playlist is a category track, this track will be deleted. This enables a full hours playlist to be scheduled in Creator, but if a request is made, it replaces a scheduled song. Generally the *Replace no request* option should be disabled when enabling this feature.

Max Search Results: The maximum number of search results sent back to a website visitor when searching the music library. A setting of zero will permit any number of search results. A special search term containing just an asterisk (*) will return all the eligible tracks in the [Search Folders](#) regardless of this setting.

Max pending requests per person: Prevents more requests than that specified by the same listener in the pending requests list. This list contains the tracks requested but not yet played. This is independent of the [Request Script](#) options for the number of requests allowed per hour and per day. This may be useful to prevent someone using multiple IP addresses to make multiple requests.

Max inserts in a row per person: Prevents too many tracks by the same requester being inserted when there are requests from others waiting to be inserted.

Request Delay will prevent a request being played until it has been in the [Listener Requests](#) list for the number of minutes specified. Some online streaming music licences require requests to be delayed.

Insert Request Intros: The folder where introduction spots for requested songs may be inserted in front of requests. When a request is inserted via a [*Request break note](#), an introduction from this folder is inserted above the requested song. Multiple tracks may exist in this folder which are rotated.

If a subfolder exists under the Request Intros folder with the name of the current [Studio User](#), the tracks will be inserted from this folder instead. This enables the voice to change at different times of the day. The Studio User may be changed automatically by scheduling a [*User](#) break note code in Creator.

Studio will first look for a file with the name of the requester in a subfolder called Names. For example, if a requester enters "Jack" into the Name field, and a file named Jack.mp3 or any supported file extension exists in the Names subfolder, Studio will insert and play this track. Otherwise, Studio will insert a random track from the selected folder. This enables audio files announcing the more common first names to be recorded and played.

Multiple files for the same name may exist. An @ character may be entered after the name and anything after that will be ignored. eg. Jack@1.mp3, Jack@2.mp3. These tracks will be selected randomly.

The Names subfolder also works within the *Studio User* folder described above.

UDP Server: Studio may be controlled via text commands sent via simple UDP, as listed in the [Studio Commands](#) table. Commands must be followed by a linefeed with an optional carriage return character before the linefeed.

Text may also be sent to any device via UDP using the [*UDP break note](#) code.

UPnP is not utilized for this server.

Mini Web Server: This server emulates a web server and can serve the Primary and Secondary Output files created by the [Now Playing](#) system, as well as Creator's HTML Playlist, and any other files stored in the HTMLPlaylist subfolder. eg. <http://localhost:8080/nowplaying.html>

For some this may be a more convenient method to display now playing information on the station website rather than using the [FTP Upload](#) feature.

The mini web server can also accept [Studio Commands](#). When no *Password* is specified (below), only the informational commands may be accessed. When a password is specified, all commands are available.

IP Restriction: When an IP address is specified, only a connection from this IP will be accepted. Multiple IP addresses may be entered, separated by any delimiter such as a comma or space.

SSL/TLS encryption: Communications will be encrypted. A self-signed certificate is provided in the StationPlaylist\Data folder with files named cert.pem and key.pem. These may be replaced with one signed by a certificate authority. The private key file must not contain a password.

Password: When specified, the server will require basic authentication. A web browser will ask for a Username and Password. The Username required is always **studio**.

Studio Monitor Server: This is another TCP server which may be used by the [Studio Monitor](#) utility to monitor *Studio*. The

utility may be run on the *Studio* PC but is usually run on another PC on the local network or on any PC with Internet access. The monitor shows current track information and can sound a warning or send an email if play stops or the connection is dropped for any reason. If this occurs, *Studio Monitor* can load *Studio* on the monitor PC and start play in automation mode, therefore providing fail safe redundancy. The monitor can also be used to stop play, toggle automation and line input, and reboot the Studio PC.

The [Studio Monitor](#) utility can also control *Studio* via command-line parameters. This can be used to control *Studio* via 3rd party software.

All connections and communication errors are recorded in the log file as a *Type 6*. See the [Logging](#) section in the *Operation* chapter.

Enabled: Check the box to accept connections on the specified TCP port.

Port: The TCP port used to establish the connection. The default of 8558 may be changed to any valid unused port number. This should usually match the Port configured in the *Studio Monitor* utility.

Login ID: An ID is required to protect against intruders taking control of *Studio*. This ID must match the *Login ID* specified in the *Studio Monitor* utility. The minimum length of a *Login ID* is 4 characters.

IP Restriction: When an IP address is specified, only a connection from this IP will be accepted. Multiple IP addresses may be entered, separated by any delimiter such as a comma or space.

Port Communications (Pro edition only)

Studio supports 2 way communications with hardware devices via serial port or contact closure boards.

Serial Input/Output: Select the serial port and the configuration settings as required by the external device.

Text may be sent from Studio via the [*S break note code](#). A terminator carriage return and/or line feed is appended to the text based on the *Terminator* option.

Studio may be controlled via a serial device when the *Enable Serial Input* checkbox is checked. The supported commands are listed in the [Studio Commands](#) table.

The [*S break note code](#) can also be used to check/uncheck this checkbox from a scheduled playlist. This may be used to disable control from satellite receivers at certain times of the day, for example.

[Now Playing](#) information may also be sent to a serial device at each change of track.

Check the *Log Activity* checkbox to write all input and output communications to the [Played Log](#) file.

Contact Closures: Studio supports some contact closure boards and audio switches. A good value board is available from [Easy-Driver I/O Boards](#) specially designed for Studio. It is [Broadcast Tools](#) (PIP protocol) compatible but with 8 input and 8 output closures on the same board, and much less expensive.

For 16 inputs/outputs, the GPI-16 or SRC-16 boards from [Broadcast Tools](#) are supported. The SRC-4 is also supported.

The same device, or two separate devices may be used for Output and Input closures.

Contact Closure Output: Studio can set closures on a board supporting input commands. Any of the 8 or 16 closures may be changed via a [Break Note Code](#). This may be used to control an audio switcher to switch between different audio sources, for example.

Initial Closure State: The checked closures will be closed when *Studio* is loaded. Only the first 8 closures can be preset.

Refresh Ports: Closes any open ports and adds any newly connected devices to the Port drop down options.

Contact Closure Input: Studio can detect closures on a hardware device supporting output closures.

With the exception of *Toogle Closures*, Studio will activate the relevant function when a closure changes from unlatched/open to latched/closed. Nothing will occur when switching from latched to unlatched, similar to pressing a key momentarily on a keyboard.. However, *Toggle Closures* can be either *Maintained* or *Momentary* as discussed below.

Enable Port: Select the closure board from the drop down list. Detection of all inputs can be enabled/disabled manually via the checkbox, or via the *G0 [break note code](#) to enable at different times of the day.

Inputs 1-8: Individual inputs can be enabled/disabled manually via the checkbox, or via the *G [break note code](#).

The first 8 closures may have specific functions assigned using the drop down list. Selecting "*Script*" will execute a script file C1.scp through C8.scp based on the input number. Boards with 16 closures may use closures 9 through 16 to run a Script file - C9.scp through C16.scp.

The supported functions and script details are described in the [Communications](#) chapter. Some of the toggles are unique to the *Closure Inputs*, such as *Line-In/Automate Toggle* which will stop play and switch line input on when latched, and switch line input off and automate on when unlatched. This may be useful for EAS emergency alert systems using one maintained contact closure.

Toggle Closure Type: This controls only the Toggle Closures such as *Play/Stop Toggle* and *Automate Toggle*.

Maintained: The selected toggle functions will be switched on when the closure is latched, and off when unlatched. For example, *Play* will start when latched and *Stop* when unlatched.

Momentary: The selected functions will work like non-toggle functions and switch state when a closure changes from unlatched to latched. Nothing will occur when switching from latched to unlatched. For example, one latch/unlatch could start play and another latch/unlatch will stop play.

Axia Livewire GPIO (Pro edition only)

Studio supports 2 way communications with an Axia Livewire device utilizing up to 4 ports.

In addition to the input relay detection below, each of the 5 relays on each port may be controlled by Studio using the *AxiaGP [break note code](#).

Axia IP Address: The IP address of the Axia Livewire GPIO device to communicate with.

Delay: Activation of all input functions will be delayed by this value in milliseconds.

Enable Port: Select an Axia GPI/GPO port from the drop down list to detect changes to the relays. Detection may be enabled/disabled manually via the checkbox, or via the *Axial [break note code](#) to enable at different times of the day.

Inputs 1-5: With the exception of *Toogle Closures*, Studio will activate the selected function when a closure changes from unlatched/open to latched/closed. Nothing will occur when switching from latched to unlatched, similar to pressing a key momentarily on a keyboard. However, *Toggle Closures* can be either *Maintained* or *Momentary* as discussed below.

Selecting "*Script*" will execute a script file named Axiadc.scp, where *d* is the Input number 1 through 4, and *c* is the input closure number 1 through 5. eg. Axia13.scp.

The other supported functions and script details are described in the [Communications](#) chapter. Some of the toggles are unique to the *Axia Inputs*, such as *Line-In/Automate Toggle* which will stop play and switch line input on when latched, and switch line input off and automate on when unlatched. This may be useful for EAS emergency alert systems using one maintained closure.

Toggle Closure Type: This controls only the Toggle Closures such as *Play/Stop Toggle* and *Automate Toggle*.

Maintained: The selected toggle functions will be switched on when the closure is latched, and off when unlatched. For example, *Play* will start when latched and *Stop* when unlatched.

Momentary: The selected functions will work like non-toggle functions and switch state when a closure changes from unlatched to latched. Nothing will occur when switching from latched to unlatched. For example, one latch/unlatch could start play and another latch/unlatch will stop play.

Welcome.

StationPlaylist Creator is a simple to use, yet powerful music and spot scheduler for terrestrial and internet radio stations, or any audio scheduling situation such as bars, malls, supermarkets, stores, etc. *Creator* may also be used to create playlists containing some video file formats.

Hourly rotations of music categories and spot groups (jingles, advertisements, programmes, etc), provides simple and effective control over audio programming format and content.

Once the template is designed, generate sophisticated playlists in seconds for 1 hour to 90 days in advance.

Creator features artist and song separation rules, a sophisticated Playlist Editor, Voice Tracking / recording, and much more.

A user-defined playlist and filename format provides compatibility with most playback systems from free software audio players through to professional broadcasting software. *StationPlaylist Studio* is recommended for best compatibility.

Less sophisticated automation is available with free audio players, such as Winamp, in conjunction with the [StationPlaylist Scheduler](#) utility included in this package.

Throughout this documentation, most references to **audio files** also refers to **video files**.

All effort has been made to make the software as accessible as possible for blind operators using screen readers.

Jump to [General Operation](#).

System Requirements:

Windows XP or later, 32 or 64-bit (Windows 11, 10, 8, 7, Vista, XP, Windows Server 2022, 2019, 2016, 2012, 2008, or 2003).

20MB RAM (consumed) + roughly 3MB RAM for every 1000 audio files.

10MB disk space.

1024x768 minimum screen resolution

Optional soundcard for track previewing and voice track recording.

Purchasing Information:

To purchase, please visit the website specified on the *Register* or *About* forms available from the Help menu within the software.

Support/Updates:

New releases will be made available for a period of 12 months from the date of purchase. Free support is also available for this period by sending a detailed message to the email address specified on the Help / About form within the software.

A further 12 months of software updates & support is available for purchase from the website.

© Copyright 2001-2024 StationPlaylist.com. All rights reserved.

Installation

Administrator privileges are required for installation and for initial registration. For normal operation after installation, a restricted user account may be used.

Installation of the purchased full edition of *StationPlaylist Creator* requires executing the installation program *CreatorSetupxxx.exe*, where xxx represents the version number. A temporary download link to this file was provided at the time of purchase, along with a serial number and 20 digit code.

If this file or the registration details are lost, please use the support email in the Help/About window. A current support and software updates subscription is required before we can provide these details. The subscription is free for the first 12 months after purchase.

The Demo edition installer, *SPLDemo.exe*, cannot be unlocked to the full version.

Note: The software licence permits the same serial number to be installed on a maximum of 2 PC's at any one time, providing both installations are being used for the same station or audio production. Additional licences may be purchased at a much reduced price if required.

If *StationPlaylist Studio* is also being installed on the same PC, *Creator* should be installed to the same folder so full integration is possible.

The full version may be installed over an existing installation, including the Demo edition, and the existing configurations will be preserved.

When *Creator* is loaded for the first time, the [Registration](#) dialog will appear asking for the Station Name, Serial number, and Code. Care should be given to the Station Name as this cannot easily change once it is entered.

After registration, an [Unlock Key](#) dialog will appear asking for an unlock key. This requires access to the internet, but not necessarily from the PC the software is installed on.

Local Area Network Considerations

It is possible to have *Creator* installed on one PC, and the automation software (eg. *StationPlaylist Studio*) on the on-air PC. This keeps the DJ/automation functions separate from the scheduling functions, when operated by different people.

The user licence for *Creator* (& *Studio*) permits the software to be installed on a maximum of 2 PC's at any one time. This provides for a 2nd installation of *Creator* for either backup purposes or for playlist editing and voice tracking. Contact us if you need more than 2 installations.

Only one *Creator* should be used to generate the regular playlists every day, either manually or automatically. Other *Creator* installations can be used for voice tracking and editing the playlists.

The categories, rotations, etc, are stored locally on the main *Creator* PC. The other installations of *Creator* do not have access to this data. However, this does not prevent playlist editing and voice tracking.

It is usually best for the playlists and music files to be located either on a server, or on the on-air PC itself. One advantage of the playlists and audio files being stored on the on-air PC hard drive is that this prevents network problems affecting the on-air PC.

Read/write access to the audio files is preferable, as track information is stored in file tags within each audio file.

Read/write access to the Playlist and Log folder on the main *Creator* PC is also required on all PC's. Often sharing folders under the Program Files folder is not possible. In this case, you may create new folders for the Playlist and Log folders and change the corresponding options in *Creator* to use these new folders.

It is best for the audio files to be accessed from each PC using the identical path and filename. There are 2 ways to achieve this.

- Use the Universal Naming Convention (UNC) for specifying folders and files in each [Category](#) and [Spot Group](#). eg. \\ComputerName\SharedFolder\Music.
- The alternative is to arrange a network drive mapping on all PC's to use the same drive letter to access the shared folder. eg. S:\Music.
If the audio files reside on a local workstation, A share may be mapped to a drive letter on the same PC where the share resides, so all PC's can access the music files using the same drive letter and folder

structures.

If the above is not possible for any reason, there is an option in Creator to specify [Playlist File Path Substitutions](#). The automation PC can then access the music files even when the drive letter is different on the Creator PC. This has a disadvantage where the Preview Player will not be able to play tracks in the playlist using Creator's [Playlist Editor](#), but voice track recording, track deletion, and track insertion is possible in the *Playlist Editor*.

Generally the [Playlist Folder](#) and [Voice Track Folder](#) should be changed to point to folders on the Studio or server computer.

Transferring Data after a New Installation

It is not advisable to transfer the complete StationPlaylist folder structure or the Data subfolder from one PC to another. This can cause several different problems including Windows folder permission issues. The unlock key will also be transferred, and this will not be compatible with a new computer. This will lead to the software asking for a new unlock key some hours or days after the data transfer.

Install the software from scratch as outlined above. Use the same serial number and 20 digit code provided at the time of purchase. The software will then ask for an unlock key, and a new one will need to be applied for. Once installed and unlocked, exit Studio and load Creator.

Creator provides a [Backup Data](#) and [Restore Data](#) feature in the *Tools menu*. This may be used to transfer the data after a new installation. At default settings, the data is stored in a folder named Backup under the StationPlaylist folder. Make this folder available to the new PC before restoring.

If *StationPlaylist Studio* is installed on the same computer, Studio's options/settings will also be transferred, excluding any DSP plugin settings.

Registration

The *Registration* dialog will appear when this software is installed on the PC for the first time.

The following information must be entered.

Station Name: Care should be given to the *Station Name* as this cannot easily change once it is entered. A minimum of 6 characters (letters or numbers) must be entered.

Any additional installations must use the same *Station Name* for the same serial number otherwise the application for an [Unlock Key](#) will fail. That is the next stage after registration.

Note that the licence permits the software to be installed on a maximum of 2 PC's at any one time, providing both installations are being used for the same station or audio production.

Serial No: Enter the serial number provided in the email at the time of purchase.

Code: Enter the 20 digit code provided in the email at the time of purchase.

The OK button will become available once the required details are entered. After which, the [Unlock Key](#) dialog will appear.

Unlock Key

The *Unlock Key* dialog will appear when this software is installed on the PC for the first time after entering the registration details supplied with the software.

The software must be unlocked before it can operate. A different key is required for a different PC.

A new key will also likely be required if the hard drive is replaced or re-formatted.

Note: The software licence permits the same serial number to be installed on a maximum of 2 PC's at any one time, providing both installations are being used for the same station or audio production. The number of installations is recorded in our database when applying for a key.

An unlock key is applied for by visiting an internet web page and entering information that appears on the screen. The unlock key is then emailed to you.

If the PC has internet access, click the large button showing the http address. This will load the web page with the details all entered for you. This greatly reduces typing errors. Just your email address will need to be entered manually.

If the PC does not have internet access, carefully write down the *Station Name*, *Serial No*, and *Machine ID* that appears on the screen. Then visit the web page <http://www.stationplaylist.com/register> on another PC and enter the details carefully.

Note: As mentioned in the [Registration](#) chapter, the *Station Name* used to unlock the software for the first time is stored permanently in our database, and this name must be used for all future installations, otherwise the application for an unlock key will fail.

Similarly, the email address used to unlock the software for the first time is also stored permanently in our database. The same email address must be used if the software is re-installed. If you have changed email addresses, please contact us so we can update your records -- support@stationplaylist.com.

Command-line Switches

Creator may be started with the following switches appended to the command line.

-i = Isolated Mode. When started with this switch, *Creator* can run isolated from the audio files. This can be useful when copying the data to a remote PC for generating & editing playlists, without access to the audio files. In this mode, new *categories* and *spots* cannot be created, and folders/files in existing *categories* and *spots* cannot be modified. *Creator* will load much faster using this switch as it is not scanning the hard disk for new or deleted files.

A shortcut for *Creator (Isolated Mode)* is installed in the Windows Start menu / StationPlaylist menu group folder during installation.

Isolated mode may also be activated by loading *Creator* with the Ctrl, Shift, and Alt keys being held down.

-r = Automatically generates a playlist and then exits the program. May be used in conjunction with **-p** and **-s**.

[StationPlaylist Scheduler](#) and *StationPlaylist Studio* use this switch along with **-p** to generate a new playlist automatically when *Auto Playlist Creation* is enabled.

-t = Import [traffic log files](#) into the latest playlist log (.PLG) file, create playlists, and exit. A shortcut named *Traffic Import* (using the **-t** switch) is installed in the Windows Start menu / StationPlaylist menu group folder during installation.

This function works with multi-day playlists. If multiple days of playlists have been created, a corresponding traffic log will be imported for each day if one exists.

This may be useful to run using the Windows Task Scheduler every day, if the traffic logs are created after the playlist has been created.

Do not use this switch in combination with **-r** if the *Auto Import* option is enabled.

-e = Loads the [Playlist Editor](#) directly. This switch is often used with **-i** to speed up loading. A shortcut for the *Playlist Editor* (using the **-i -e** switches) is installed in the Windows Start menu / StationPlaylist menu group folder during installation.

With the **-e** switch specified, a filename parameter may be included containing the playlist log (.PLG) file to load. eg. **"C:\Program Files\StationPlaylist\SPLCreator.exe" -i -e "C:\Program Files\StationPlaylist\Logs\141031-00.plg"**

-s = Scan folders and exit. When started with this switch, *Creator* will load and scan the Category and Spot Group folders, regardless of the [Scan Folders at Startup](#) option, then save changes in the database, and exit the program. This may be useful to run every day or every few hours via the Windows Task Scheduler, when Remote VT Server is installed on the same computer, to update the available audio tracks for remote searches. May be used with **-p** and **-r**.

-p = Use in combination with **-r**, **-s**, or **-t** to hide the splash screen and playlist generation windows.

One way to use a switch is to copy an existing shortcut icon for *Creator* and append the switch to the end of the Target command line.

Creator will return an ExitCode if an error or warning occurs while creating a playlist or importing a traffic log when using the **-r** or **-t** parameters. This may be used in a batch file or similar to determine if a problem occurred.

Warning = 1

Error = 2

General Operation

There are 4 main data entry pages: [Categories](#), [Spot Groups](#), [Rotations](#), and [Schedules](#), and 2 optional pages [Related Artists](#) and [Related Titles](#). These correspond with the 6 menu buttons you can see on the left of the Creator main window.

They are all viewed and maintained using a Windows File Explorer type interface. Items in the groups may be created, edited, renamed and deleted. *Rotation* and *Schedule* items may also be duplicated with the *Copy* option.

All new items and changes to items are not physically saved until the *Save* option is executed.

The [Track List](#) page may be used to view and move tracks in and out of categories and spot groups.

The [Options](#) are split over 5 pages using the menu buttons [General](#), [Separation Rules](#), [Playlist Format](#), [Advanced](#), and [HTML / VT](#).

We recommend you familiarize yourself with the [Menu Items](#) before proceeding to the [Getting Started](#) chapter. The *Getting Started* chapter is a step by step tutorial to generating your first playlist.

Menu Items

Most menu items also have keyboard shortcut keys available, which are visible in the drop down menu.

Many of main menu items are also available from Toolbar buttons and/or the right-click popup menu.

► [File Menu](#)

► [Edit Menu](#)

► [View Menu](#)

► [Tools Menu](#)

File Menu

New: Create a new item. The appropriate properties window will appear to enter the details of the new item. Use this to create a new Category, Spot Group, Rotation, Schedule, Related Artist or Related Title, depending on which data page you are viewing.

When viewing the Track List, this function is for adding new tracks to the selected category/spot group.

Open: Open the properties of a selected item. This loads the same window as above to modify the details of an existing item. With the exception of the Track List which will open the [Track Properties](#) of the selected items.

Save: Save all changes made to all configuration data. This should also be executed after generating a playlist to save the last scheduled dates/times of all scheduled tracks, store the current track position in each category and spot group, and move the next playlist [Start Day](#) on to the next period. This could take a few minutes depending on the number of files used in a generation. If the [Store data in file tags](#) option is enabled, the last 18 scheduled dates are stored inside each audio file using a custom StationPlaylist tag, and may be viewed in [Track Properties](#).

If changes have been made but not saved, you will be prompted to save all changes when exiting *Creator*.

Create Playlist: Opens the [Playlist Creation](#) dialog to create a new playlist. This is equivalent to clicking the *Create* button in the tool bar.

Print: Prints the selected *Track List* items, *Rotations* or *Schedules*.

Selecting *Print* from the menu, or the Ctrl+P keyboard shortcut, will open a print dialog before printing. Using the *Print* button on the main window will print immediately without the dialog.

A virtual printer driver which creates a PDF document instead of printing to paper may be useful. There are several free & commercial solutions available on the internet.

The playlist may be printed automatically when one is created. See [Auto Print Playlist](#) in the *General* options.

Printer Setup: Configure the printer for future use. The selected printer is permanently stored.

Printer Font: Select the font, style and size for all printed reports.

Rescan All Folders: Rescans all [Category](#) and [Spot Group](#) folders for new and deleted tracks. This should be executed when tracks have been added or removed from a folder while *Creator* was open.

Files with the archive attribute set will also be checked for modifications, such as changes to the artist, title, cue, or segue information made in other utilities such as the [Track Tool](#) or *StationPlaylist Studio*.

This option is not necessary if the changes to folders or files occurred while *Creator* was closed, and the option [Scan Folders at Startup](#) is checked on the *Advanced* options page.

Note. This option should not be executed after generating a playlist, unless a *Save* has been executed first, as this will reset the scheduled times of the audio files selected for the playlist.

Rescan All Folders, Save & Exit: This option is visible only when [Rescan Folders at Startup](#) is disabled in the *Advanced* options. This enables a user with a very large library to *Rescan All Folders* and leave *Creator* unattended with the knowledge all changes will be saved and program terminated.

Playlist Creation Dialog

This dialog appears when clicking the *Create* button in Creator's tool bar, or the *Create Playlist* item on the File menu. A playlist is a list of the audio files selected in advance to be played by the automation player (eg. *StationPlaylist Studio*).

The current **Start Day/Hour** settings are copied from the [General Options](#) page.

Usually the **Day** and **Hour** is already set to when the next playlist should be created from. This date is automatically incremented to the next creation date when a [Save](#) is executed after generating a playlist. ie. If the **Day** option is set to 7 days, the date will be incremented by one week. The **Day** should only be adjusted in rare situations where the current days playlists need to be re-created and overwritten. This is not recommended as it can cause violations of the separation rules.

Playlists may be generated for up to 90 days, the norm being 1 or 7 days.

Creating a playlist every day is most common when changes to the playlist format are made regularly, such as adding and removing advertising or songs.

At least one Category, Rotation and Schedule are required before a playlist can be created. See the [Getting Started](#) chapter for a tutorial on how to configure *Creator* before generating a playlist.

Store above changes is a checkbox that will appear when changes to the start day, hour, or number of days to generate is modified. When checked, the adjusted settings are stored back to the *General options*. Uncheck if you are creating a one-off playlist for perhaps a shorter period or well in the future for unusual purposes.

Save after creation checkbox, when checked, will execute a [Save](#) once the playlist is created. This is particularly useful if you manually generate several days in a row, one day at a time. A *Save* is required after each generation to store the scheduled dates/times for all scheduled tracks. Unchecked enables testing if a playlist is correct in the *Playlist Editor* and re-creating again if required, before manually clicking *Save* in the Creator main window.

Click **Start** to start the creation of a new playlist. This may take a few minutes.

Click **View/Edit Playlist** to load the Playlist Editor and see the tracks that were selected in every hour.

Playlist creation may be automated using the *Auto Playlist Creation* feature in [StationPlaylist Studio](#) or [StationPlaylist Scheduler](#).

The playlist files created are named in the format specified in the [Filename Format](#) in the *Playlist Options*. The default settings will produce hourly files formatted **mmdd-hh.M3U**. **mmm** is usually the first 3 characters of the month, eg, Jan, Feb etc. **dd** is the day of the month, 01-31. **hh** is the hour of the day, eg, 06 is 6am, 18 is 6pm. An example playlist filename using this format is **Aug31-06.M3U**. This playlist should be loaded by your automation player at or just before 6am on August 31.

The structure of the track details stored inside the playlist files are determined by the [Playlist Format](#) option in the *Playlist Options*.

If enabled on the [General](#) options page, a *Track Summary* and *Spot Summary* is also created in the [Log Folder](#).

If enabled, an [HTML Playlist](#) is also created in the *HTML Playlist Folder*.

If a selection error occurs due to an excessive song or artist separation rules, a dialog message will ask to ignore or cancel the creation. If ignored, the program will select a track which will violate the separation rules. This problem should be resolved as soon as possible by reducing the separation intervals or adding more tracks to the category.

The generated playlist may be viewed immediately in the [Playlist Editor](#). If a rotation or schedule appears to be

wrong, make the required changes and generate another playlist without executing a **Save**. A playlist may be generated several times for the same period until you are happy with it.

After creation, if no errors occurred and you are happy with the playlist, a **Save** should be executed. This saves the *last scheduled time* of every track selected which will be used for the separation rules in future playlist creations. Also saved is the position of each track in each category, so the next playlist created will start selecting tracks from where it left off last time. The *Next Item* for each Spot Group is also saved, and the *Start Day*, and optionally, the *Start Hour* is also incremented to the next creation date.

The dialog window will show the progress of the generation. At the end of the generation, a *Usage Analysis* is displayed showing how many times each *Category*, *Spot Group*, *Rotation*, and *Schedule* was used.

The *Category* and *Spot Group Analysis* also includes how often each category rotates. The *Min Rotation* is the number of hours or days it takes to go through all tracks in the category, if there were no separation rules limiting selections. The *Estimated Rotation* period is how fast the list of tracks are likely to rotate with the current separation rules.

The *Estimated Rotation* will not necessarily be accurate if the category has not rotated at least once during the playlist creation. The value is also meaningless for fast rotating categories. An Estimated Rotation period much less than the Min period could indicate the separation rules are too excessive.

The rotation periods will increase when using the [Recycle Category Tracks](#) feature, or adding more tracks to the category.

The details displayed in the dialog window are stored in two text files in the [Log Folder](#). A file in the format *Genyymmdd-hh.log* is stored for each playlist creation. A file named *Generate.log* is also overwritten and always contains the information from the last playlist creation.

Generate.log may be viewed using an option on the [View Menu](#), or by right-clicking the *StationPlaylist Studio* or *StationPlaylist Scheduler* system tray icon. This is the green or blue satellite icon at the bottom-right of the screen next to the computer time.

Protection from accidental or unauthorized playlist creation is possible by allocating a password to this process. See [Change Creation Password](#) on the *Advanced* options page.

Track Selection Logic

Tracks in a category are initially shuffled into a random order when a category is created, and Creator attempts to select each track from top to bottom as shown in the order shown in the [Track List](#). Tracks skipped over due to separation rules will be tried many times before reaching the end of the list. After reaching the end of the list, tracks that could not be selected after many attempts are placed at the top of the new list after the list is reshuffled into a new order. This gives the skipped tracks the best chance of being selected next time through the list.

The order of the tracks and the current position in the track list are stored permanently during a **Save**. When Creator is loaded again to create more playlists, selection starts from where it left off last time in each category.

Edit Menu

Copy: Create a duplicate of the selected [Rotation](#) or [Schedule](#) item. This option is not available for *Categories* and *Spot Groups*. For [Track List](#) items, the track details are copied to the clipboard for pasting in the [Playlist Editor](#) or *StationPlaylist Studio*.

Rename: Rename the selected item. An item may also be renamed by clicking on the item when it is selected, or pressing the F2 function key.

Delete: Delete the selected item(s). An item cannot be deleted if it is used in another group.

Select All: Select all items in the list.

Find Tracks: Searches all categories and spot groups for tracks matching a portion of an artist, title, or filename, and displays the results on the [Track List](#) page.

Usage List: For a *Category* or *Spot Group*, this option lists all the *Rotations* the *Category* or *Spot Group* is used in. For a *Spot Group*, it also lists the *Schedules* where the group is used in the *Timed Spots*. For *Rotations*, it lists the *Schedules* that the *Rotation* is used in.

Load in Track Tool: Load all the tracks in the selected *Categories* or *Spot Groups*, or the select tracks in the *Track List*, into the [Track Tool](#). The *Track Tool* button on the tool bar also supports this function. The *Track Tool* item on the [Tools menu](#) will load the *Track Tool* with no tracks loaded. After editing tracks in the *Track Tool*, Creator will perform an automatic *Rescan Folders* (below).

Rescan Folders: Rescans the folder(s) in the selected *Categories* or *Spot Groups*. New files that have been added since *Creator* was opened will be added to the track list, and files removed from the folder(s) will be removed from the track list.

File tags will also be checked for modifications, such as changes to the artist, title, cue, or segue information made in other utilities such as the [Track Tool](#) or *StationPlaylist Studio*.

This option should be executed when changes are made to audio files on the disk while *Creator* is open. To rescan all folders in all *Categories* and *Spot Groups*, use the [Rescan All Folders](#) option on the *File Menu*.

Note. This option should not be executed after generating a playlist, unless a *Save* has been executed first, as this will reset the scheduled times of the audio files selected for the playlist.

Reread Foreign Tags: Rereads foreign file tag information (eg. ID3 tags) from all the files in the selected *Categories* or *Spot Groups*. All audio files have their file tags read when loaded for the first time into a *Category* or *Spot Group*. This information is then stored in our own native (SPL) tags for speed purposes. Changes made to the foreign tags after the files have been loaded into *Creator* are ignored. Use *Reread Foreign Tags* to read the new information in the ID3 tags.

To reread the foreign tags of all files in all *Categories* and *Spot Groups*, use the [Reread All Foreign Tags](#) option on the [Tools Menu](#).

View Menu

Details, Details Row, List, Small Icons, Large Icons: Items on the *Categories*, *Spot Groups*, *Rotations*, and *Schedules* pages may be displayed in any of these visual methods, as in the Windows File Explorer. *Details Row* is identical to *Details* view except selecting an item will highlight the entire row.

Sort by Name/Sort by Type: These items are available only when viewing the *Spot Groups* page, and determines whether the spot groups are displayed in name or [Spot Group Type](#) order.

View Generate.log: Displays the details of the last playlist creation. This should be checked regularly for selection errors if *Auto Playlist Creation* is enabled within the [Scheduler](#) utility or *StationPlaylist Studio*.

Open Logs Folder: Opens the folder containing all *Creator*'s log files in Windows Explorer.

Tools Menu

Playlist Editor (not available with Creator Lite): Loads the [Playlist Editor](#) to view, edit, print, or preview a created playlist. In *Creator Pro*, it may also be used to record voice tracks and merge commercial logs from 3rd party traffic/billing software.

Intro/Outro Tool: Loads the [Intro/Outro Tool](#) which is used to list the files in a *Category* which do not have a matching introduction file in an *Intro* or *Outro Spot Group*. In Creator Pro, intros and outros may also be recorded. See [Spot Properties](#) for information regarding Intro and Outro *Spot Groups*.

Track Tool: Loads the [Track Tool](#) program used to establish Intro times and/or manual cue and segue positions for individual tracks. This is generally only useful for users of *StationPlaylist Studio*. Unlike the [Edit menu](#) item, this item will not load any files from selected *Categories* or *Spot Groups*. After editing tracks in the *Track Tool*, Creator will [Rescan All Folders](#) automatically.

SPL Recorder: Loads [SPL Recorder](#), a non-visual audio recorder, which may be used to manually record from the soundcard direct to a file in Ogg Vorbis, MP3, or WAV formats. Optional DSP processing may be applied during the recording.

Create Stream File: Loads the [Create Stream File](#) wizard used to schedule internet streams, RSS feeds, or files stored on a Web or FTP server to play in *StationPlaylist Studio*.

Backup Data: Copies all configuration data, excluding registration/unlock key, from the StationPlaylist\Data folder to a [Backup Folder](#) specified on the *General* options page. This includes the *Categories*, *Spot Groups*, *Rotations*, *Schedules*, *Related Artists*, *Related Titles*, and *Options*. Plus *StationPlaylist Studio*'s settings, if installed.

At default settings, [Auto Backup Data](#) is enabled to do this automatically during every *Save*.

If *StationPlaylist Studio* is installed on the same computer, Studio's options/settings will also be transferred, including Carts, SPL Encoder, and RTP Sender configurations, but excluding any other DSP plugin settings.

The copied files can be used for transferring the data to another PC to duplicate the configuration via *Restore Data* below.

Restore Data: Restores the configuration data from a previous *Backup Data* operation. This may be necessary if a problem occurred during the previous *Save* operation. The backup files can also be manually copied to the Data folder if necessary before loading *Creator*.

A backup and restore may be used to transfer data from an installation on one PC to another.

Category Path Replacement: This is generally only useful when transferring data from one PC to another, and the audio files are on a different drive letter or path structure. This will replace the path for all category and spot group tracks, plus rotations with [break note codes](#) containing file paths. All occurrences of the text in the From path will be replaced with the text in the To path. If the From path ends in a backslash "\", the To path also needs to end in a backslash. Verify the changes have been made correctly before executing *Save*.

BPM to Tempo Converter: Works through all tracks in all categories reading the BPM file tag and converts the BPM to 1 of the 5 Tempo settings. There are apps available on the internet to automatically determine the BPM of songs, but Creator uses Tempo for separation/transition settings.

Reread All Foreign Tags: Rereads foreign file tag information (eg. ID3 tags) from all the files contained in all *Categories* and *Spot Groups*. All audio files have their file tags read when loaded for the first time into a *Category* or *Spot Group*. This information is then stored in our own native SPL (APEv2) tags for speed purposes. Changes made to the foreign tags using a 3rd party file tagger, after the files have been loaded into *Creator*, are usually ignored. Use *Reread Foreign Tags* to reload the information in the ID3 tags.

Reread All SPL Tags: Reloads all SPL (APEv2) tags into the Category and Spot Group databases. This should never be necessary unless a database change has been made in a new version of the software and you have been instructed to execute this function.

Remove SPL File Tags: Removes the SPL (APEv2) file tags from all audio files contained in all *Categories* and *Spot Groups*. The file tags stores information about each track such as the artist, title, intro times, and the last scheduled dates and times. This may be desired before uninstalling Creator. After removing the file tags, exit *Creator* without saving changes, otherwise the tags may be added again during a *Save*.

Lock Creator (*Creator Pro*): This option is available when a [Master Password](#) has been set in the Advanced Options. This will lock *Creator* from all access until the *Master Password* is entered.

Reset Window Positions: Resets all window positions and sizes to default, including column positions and sizes for List View data. A restart of *Creator* may be required for all changes to take effect.

Getting Started Tutorial

This is a step by step tutorial explaining all the requirements for producing your first playlist.

The first 3 chapters in this tutorial provide some background information and possible file organization that may be required before you start working with *Creator*.

If you are in a hurry, try the [Simplified Tutorial](#).

- ▶ [Categorize Your Music](#)
- ▶ [Folders and Files](#)
- ▶ [Song Database](#)
- ▶ [Create Categories](#)
- ▶ [Create Spot Groups](#)
- ▶ [Create Rotations](#)
- ▶ [Create Schedules](#)
- ▶ [Create a Playlist](#)
- ▶ [Simplified Tutorial](#)

Categorize Your Music

Creator requires at least one [Category](#), one [Rotation](#), and one [Schedule](#) to be created before a playlist can be generated. This chapter describes what a category is used for.

A *Category* is normally a group of audio files of a similar nature, such as a similar genre, age, or tempo, or combination of these.

All your music tracks may be combined into one large *Category*. This makes for a very simple configuration and should take just 5 minutes to have a playlist generated and be up and running. However, this will only produce a basic shuffled selection of all your music. With Categories you can control the type of tracks that will play back to back.

Here are some examples of Categories:

Example 1

Fast Rock
Slow Rock
Fast Pop
Slow Pop

Example 2

80's Rock
90's Rock
80's Pop
90's Pop

Example 3

Currents
Recurrents
Gold

Example 4

Fast 80's Rock
Slow 80's Rock
Fast 90's Rock
Slow 90's Rock

Example 1 would be useful If you wish to control the tempo of songs scheduled back to back.

Example 2 would be useful if you wish to control the age of songs scheduled back to back based on decade.

Example 3 would be useful If you wish to control the age of songs scheduled back to back based on recent releases.

Example 4 provides a lot of control over the scheduled music as it contains 3 pieces of criteria, tempo, age, and genre.

Note that the Pro edition of Creator supports *Separation Rules* which can prevent 2 or more of the same type of track to be selected back to back (Genre, Mood, Tempo, Energy, Gender, Decade). Therefore it is not necessary to create categories with these criteria unless you need to produce a specialty show cointaining all of one criteria.

Go to [Folders and Files](#)

Folders and Files

In *Creator*, a song is added to a category, rather than a category added to a song. This is a different concept to some other scheduling software.

We will discuss later how to create a category and add files to it.

There are 2 methods of defining what files exist in a category. Individual **files** may be added to a category (recommended), or one or more **folders** may be assigned to a category. A mixture of the 2 methods may be used for different categories. There are advantages and disadvantages of both methods.

Folder Method

The easiest method to create multiple music categories is to organize all your music files into separate folders on the hard drive, based on the music category. These folders are then specified when creating each [Category](#).

When new tracks are added to a folder, they will be automatically included in the associated *Category* when *Creator* is loaded. No manual entry of new files or deletion of removed files is required, so this can save a lot of time.

However, there are 3 disadvantages of using category folders.

1. If songs are regularly moved from one category to another. This can cause an issue where a file has been scheduled in the current playlist using the old folder location. The automation software will not be able to find the file to play it.
2. You wish to have some songs in 2 or more categories. Copying audio files to 2 or more folders is very inefficient use of hard drive space. Creator will also regard a copy of a file as a different song by the same artist,

which can cause song separation issues.

There is a solution for both issues above, although not ideal as it will slow down the loading of Creator. You can still use the folder method by creating Windows shortcuts to files or other folders and placing the shortcuts in a new folder. Folders may then be used for each Category to store the shortcuts, and therefore individual songs do not need to be selected manually or moved from their original folder.

3. The [Track List](#) feature cannot be used to add, remove or move tracks between different categories. This requires moving the files on the hard drive.

File Method

Using this method, all audio files can stay in whatever folders they are in, and can be easily moved or added to other categories. Some stations have all their song files in one large folder. Tracks that have moved category will still continue playing in the existing playlists.

Disadvantages.

1. Each individual audio file needs to be manually assigned to a category in Creator. This can be easily done using the [Track List](#). All new tracks in the future will also need to be added individually to the relevant category.
2. The Criteria feature in [Category Properties](#) cannot be used when using the individual file method.

File Types

Important: Windows Defender and other anti-virus software can significantly slow down the loading of Creator when it scans the audio files. We recommend adding the audio file types you use such as ".mp3", ".wav", and any other types to the file type exclusions list in your anti-virus software. In our experience, audio files cannot contain a virus so this is quite safe. Alternatively, add the main folder containing all your audio files to the folder exclusion list.

More advanced information on supported file types is available below, but for now, you may wish to skip the rest of this chapter and go to [Song Database](#).

Only files ending with the following file extensions will be considered for the playlist, however, supported extensions may be removed from this list by de-selecting individual extensions in the [Playlist Format Options](#).

Audio files: MP2, MP3, MP4, M4A, MP4A, WAV (PCM,MP2,MP3), FLAC, OGG, OPUS, WMA, APE, MAC, MUS, AIF, AIFF, AIFC, SND, OTS.

Video files: AVI, MPEG, MPG, WMV, ASF, MOV.

Other files: M3U, PLS, EXE, BAT, CMD.

All other files in a folder will be ignored. Note that *StationPlaylist Studio* cannot play OTS files.

Plain AAC files (.AAC file extension) without an MPEG-4 header are not currently supported.

For lossless file storage, we recommend FLAC for best performance. This provides full CD audio (WAV) sound quality but at a reduced file size of around 50 to 60% of the original WAV size. See <http://xiph.org/flac>.

For lossy file storage, we recommend MPEG-4 AAC (M4A) or Ogg Vorbis. These formats provides better sound quality at lower file sizes than MP3.

Most CD Rippers support both FLAC and Ogg Vorbis such as [EAC](#) and [CDex](#).

M3U & PLS files may be used to insert several sequential audio files in the playlist, or for scheduling Internet streams to play.

EXE files are included because *StationPlaylist Studio* is able to execute EXE files scheduled in the playlist.

Internet streams may be scheduled to play by firstly creating a stream file using the [Create Stream File](#) wizard on the *Tools menu*. Then schedule the generated PLS file in a *Spot Group* just like any other audio file.

Since the duration of EXE files are unknown, the duration will be prompted for manual entry when they are loaded for the first time. The duration entered is the length of time the item will play in *StationPlaylist Studio*.

Go to [Song Database](#)

Song Database

It is usually important the artist of each track is known by *Creator* so the artist separation feature can work. Artist separation is a common requirement for most radio stations. Obviously the song title is also useful, plus other song information.

If you have an existing database you need to import into *Creator*, this may be possible. Contact us for details.

File Tags:

Creator can automatically import song details if your audio files have the song details stored within a file tag, or if the filename contains the artist and title.

Creator supports reading the following file tag formats.

- RIFF LIST/INFO chunk and Cart Chunk (**WAV**)
- ID3 v2.3.0 or later, and ID3 v1 (**MP3**)
- MPEG-4 AAC and ALAC (**MP4, M4A**)
- Vorbis (**OGG, FLAC, OPUS**)
- Windows Media Audio (**WMA**)
- Monkey's Audio **APE** v2 (all file types)

With the exception of APE tags, the other tagging structures above are regarded as "foreign" tags in *StationPlaylist*.

Once the information is read from a foreign file tag, the foreign tag will not be read again. The information will be stored in an SPL file tag within each file. This is mainly done due to speed issues reading and writing foreign file tags.

The StationPlaylist custom tagging system, which we call an SPL tag, is compatible with Monkey's Audio APE v2 file tags. An APEv2 file tag editor can be used to modify the information *StationPlaylist* uses. APEv1 tag editors will corrupt the file tags and lose the information, so care must be taken when using 3rd party tag editors.

Some of the information read from the foreign file tags is also stored in a temporary file database per category. The SPL file tag is only used when accessing data outside the database, when moving files from one category to another, and when saving new information.

If all your audio files are in the file formats above and have useful file tags, then you may skip the rest of this chapter and go to [Create Categories](#).

Filename Structure:

If file formats other than those listed above are being used, or there are no file tags present in the file, *Creator* will attempt to use the filename to obtain the artist and title.

For filenames to be useful, they need to contain the artist & title in a consistent structure. The default filename format is **Artist - Title.ext**. Note there is a space either side of the dash (-).

There are two options used to define how the artist and title is extracted from the filename. The [Artist Delimiter](#) specifies what character is used between the artist and title (eg. " - "), and the [Track Filename Format](#) defines whether the artist or title appears first in the filename.

If the filenames do contain the artist and title in a consistent structure, and supported file tags are present in the file but the information is not correct or reliable, then the option [Use file tags for Artist and Title](#) should be disabled on the Advanced options page. This will force Creator to always use the filename and disregard the file tag for obtaining the artist and title. Other information such as the Album name will still be read from the file tag if it exists.

If both the file tag and the filename does not contain useful information, the artist & title of each audio file may be entered in Track Properties, available from the [Track List](#), after loading tracks into a [Category](#) or [Spot Group](#).

Manual [Intro and Segue Times](#) may be optionally specified in the filename. The filename format is: **Artist - Title#xx~yy.ext**, where **xx** is the length in seconds of the song ramp or instrumental (non-vocal) beginning of a song, and **yy** is the *Segue* or crossfade position starting from the end of the file.

eg. Cat Stevens - Peace Train#12.5~7.5.mp3. In this case, the *Intro* time is 12.5 seconds, and the *Segue* time is 7.5 seconds before the end of the song.

The *Segue* time must appear last in the filename if both *Intro* and *Segue* times are included.

Go to [Create Categories](#).

Create Categories

Categories, Spot Groups, Rotations, and Schedules are the 4 building blocks for designing as simple or as sophisticated playlists as you require.

Once you have organized your audio files on the hard drive, it's now time to start using Creator, and create a [Category](#) in [Category Properties](#). A *Category* normally contains all the songs associated with a particular genre. Here are the basic steps for creating a *Category*:

1. Click the *Categories* button on the left to show the Categories page and click *New*
2. Give the *Category* a name that describes the type of music, eg. Currents, Gold, 80's Slow Rock, 90's Fast Pop, All Music, etc.
3. Optionally, in the *Files or Folders* area, drag and drop files or folders from Windows, or enter the filenames or folders manually, or use the *Add Folder* or *Add Files* buttons to browse for the files or folders to include in this *Category*. This step may be skipped at this stage and individual files added later using the [Track List](#).

If you have moved your files into separate folders, then specify just the folder location and not the individual files within the folder. This can be a folder with a number of sub-folders containing the music. In this case, click the *Include Subfolders* checkbox.

When specifying folders, the *Criteria* button can be used to select track properties like tempo, a year range, etc, to define a more narrow category. See the [Category Properties](#) chapter for more details.

4. Click OK to create the *Category*. This will load any files specified into the *Category* and read track information from all the audio files tags if available, such as the artist, title, album, duration, etc.

Repeat these steps for each genre or type of music.

If you do not need to have precise control over what types of songs are scheduled next to each other or at different times of the day, you can add all your files into one category called say *All Music*, and specify the main folder containing all your song files, and click the *Include Subfolders* checkbox.

If some or all of the files loaded into a *Category* do not have the artist included in the file tag or the filename, then this information will may need to be entered manually using [Track Properties](#). On the [Track List](#) page (left menu item), double-click a *Category* (bottom-right box) to display the list of tracks within this *Category*. Click the Artist column to sort into Artist order and check the details in the list. Double-click a track that needs attention and edit the artist, title, and other optional details.

Go to [Create Spot Groups](#).

Create Spot Groups

[Spot Groups](#) are similar to *Categories* except that they usually contain a smaller number of audio files such as station ID's, jingles, advertisements for one or many organisations, or a weekly talk series, for example. Often there is only one *audio* file in one *Spot Group*.

Spot Groups are not necessary for creating a playlist, but most radio stations will require at least a regular station ID to be scheduled.

Here are the basic steps for creating a *Spot Group*:

1. Click the *Spot Groups* button on the left to show the Spot Groups page and click *New*
2. Give the *Spot Group* a name that describes the type of spots, eg. Station IDs, Advert Corner Store, etc
3. In the *Files or Folders* area, enter or browse for the file or folder to include in this *Spot Group*. Drag and drop is available from a Windows folder.
4. Click OK to create the *Spot Group*. This will load the track(s) into the *Spot Group*.

The artist and title of audio files in a *Spot Group* are not usually important since the separation rules for songs, artists, and titles are not used. Items from a *Spot Group* are normally selected sequentially in a fixed order, though a random option is available.

Go to [Create Rotations](#).

Create Rotations

A [Rotation](#) is an hourly template of *Categories* and *Spot Groups* from where each audio file will be selected. At least one *Rotation* must be created in [Rotation Properties](#).

A rotation is defined by selecting the music categories in the order desired for one hour of scheduling. The actual hour or hours that a rotation will be scheduled is not defined at this stage. This is done in a *Schedule* described in the next chapter.

To prevent the same types of songs being in the same order every hour, we recommend at least 3 rotations are created with the categories in different orders.

The first *Rotation* created will be flagged as the *Default Rotation*. This *Default* switch can be changed to a different *Rotation* later. You will see the meaning of the *Default Rotation* once you start creating a *Schedule*.

Here are the basic steps for creating a *Rotation*:

1. On the Rotations page, click *New*
2. Give the *Rotation* a name that describes the type of music that will be played in this hour. *Default* is a common name for the rotation that will be used for most hours in a normal day. Other examples are *Weekday Mornings*, *Saturday Nights*, *Tom's Country Show*.
3. Drag *Categories* on the left over to the *Rotation List* on the right several times until the *Approx Time* at the top of the list is over 64 minutes (01:04:00). You will most likely need to drag the same category several

times. If you have only one *Category*, you may need to drag this *Category* perhaps 12 to 15 times to the *Rotation List*.

4. If you have created one or more *Spot Groups*, you may also drag a *Spot Group* over to a position in the *Rotation List*. For example, you may like to have a Station ID play every 3 songs, so insert this *Spot Group* after every third *Category*.
5. Click OK to create the *Rotation*.

A new *Rotation* is required when different programmes or different styles of music are wanted at different times of the day.

In a *Weekday Mornings* rotation, for example, you may want faster and/or more Top 10 songs selected, so this *Rotation* should contain *Categories* containing this type of music. *Tom's Country Show* would only contain country music based *Categories*.

If the same rotation structure is desired for all 24 hours of every day, then only one rotation will need to be created.

Rotations should be defined to exceed one hour by at least four or five minutes. This is the *Approx Time* displayed at the top of the *Rotation List*.

The times on the left of each *Category* in the *Rotation List* is only an estimate of when a track from this category will be played. The times are based on the average length of all tracks in each *Category*.

Here is an example *Rotation*. The red items are *Spot Groups*, and the *Categories* are green:

Station ID
 Pop Songs
 80's Songs
 Pop Songs
 Station ID
 \$5 Ads
 Bike Shop Ad
 Station ID
 Pop Songs
 70's Songs
 Pop Songs
 Community Notices (block)
 Station ID
 80's Songs
 Pop Songs
 Rare Classics
 etc

Go to [Create Schedules](#).

Create Schedules

The next step is to create at least one daily [Schedule](#) in [Schedule Properties](#).

A *Schedule* is a list of 24 time slots, one for each hour of the day. Each time slot is assigned a [Rotation](#) to use for the hour. This is where you select which *Rotations* will be used at different times of the day and/or days of the week. The same rotation is often used for multiple time slots. One rotation can be used for all 24 hours if desired.

Here are the basic steps for creating a *Schedule*:

1. On the Schedules page, click New.
2. Give the *Schedule* a name that describes the days of the week that this schedule will be used. *Default* is a common name for a *Schedule* when the same types of music and programmes will be used every day of the

week. Other examples are *Weekdays* or *Saturday*.

3. You will notice **...DEFAULT...** listed beside all 24 hours in the Schedule List. This is a special virtual rotation which represents the *Default Rotation*. The *Default Rotation* is the first rotation you created, unless you changed the *Default* checkbox inside a different Rotation. It appears with a slightly different icon than other rotations. If you have only one Rotation created, or you only want the Default Rotation used for this Schedule, then you can skip step 4 below and go to step 5.
4. Drag a Rotation on the left over to the Schedule List on the right to the hour of the day that you wish this rotation to be used. Do this as many times as required.
For example, if this Schedule is for weekdays only, and you have created a Weekday Mornings rotation, drag the Weekday Mornings rotation over to the 6am, 7am, 8am, 9am, etc, time slots. The **...DEFAULT...** rotation can be left attached to the time slots where the default rotation should be scheduled. i.e. There is no need to drag the real name of the default rotation to the Schedule List.
5. Click the days of the week that this *Schedule* will be used. If this is a *Schedule* that will be used only for weekdays then tick all days except the Saturday and Sunday checkboxes. If you are planning to play the same types of music and programmes every day of the week, then then tick all 7 days. In this case, you will need only one *Schedule*.
6. Click OK to create the *Schedule*.

For *Creator* to generate a playlist for every day of the week, all 7 days of the week need to be ticked somewhere in the list of Schedules.

Here is an example Schedule.

00:00 Early Hours (midnight)
01:00 Early Hours
02:00 Early Hours
03:00 Early Hours
04:00 Early Hours
05:00 Early Hours
06:00 Weekday Mornings
07:00 Weekday Mornings
08:00 Weekday Mornings
09:00 Weekday Mornings (*finishes at 10am*)
10:00 Day Default
11:00 Day Default
12:00 Day Default
13:00 Day Default
14:00 Tom's Country Show
15:00 Day Default
16:00 Day Default
 etc.

Go to [Create a Playlist](#).

Create A Playlist

If you have followed the previous steps and managed to create at least one *Schedule*, then you are almost ready to create a playlist. Some options will need to be checked and modified if necessary.

Click the [General](#) options button on the left. The *Start Day* and *Hour* is the day and time you want your playlist to start from. This is usually set to a future date such as tomorrow, but for your first playlist, set the *Start Day* to today's date. For simplicity, we recommend leaving the *Hour* at 00:00. All new playlists will start at midnight, and it is often easier to work with whole days when generating a playlist.

The next option down on the [General](#) options page is the number of days you wish to generate a playlist. The default is 1 day, which is common if there are changes made to the programming on a daily basis, such as

commercials being inserted and removed. If your programming requirements are static from day to day, then you may wish to generate a playlist every week. In this case, set the option to 7 days. Up to 90 days is supported.

On the [Playlist Format](#) options page, pull down the selection list beside the *Playlist Format* setting. This displays a list of some automation players which require a specific playlist format. If you have *StationPlaylist Studio* installed, then select this from the list. If you are using Winamp or another basic media player then select *Standard M3U*. This will set several other options on the *Playlist Format* and *Advanced* option pages to ensure best operation with the selected automation player. The *Playlist Format* option itself will change to a set of parameters representing the format required for the player.

If you are using a broadcast automation system which is not available on the list, a user-definable format may be configured in the [Playlist Format](#) option.

You should now be ready to create a playlist. Click the Create  tool button to load the [Playlist Creation](#) dialog and click Start to create playlists. This process is very fast compared to most other schedulers, and can take less than 10 seconds. A window will appear showing the progress, plus some statistics of how many times each *Category*, *Spot Group*, *Rotation*, and *Schedule* was used.

You may like to view the playlist created in the [Playlist Editor](#) (*Standard & Pro editions*) by clicking the *View/Edit Playlist* button. If you are not happy with the playlist then go back and make changes to the *Rotations* or *Options*, or whatever requires attention, and then generate another playlist.

Once you are happy with the playlist, it is important to click the *Save* button. This saves the scheduled dates/times for each track scheduled in the playlist, so the song, artist, and title separation intervals will work when you generate a playlist for the next period. The *Save* will also move the [Start Day](#) to the next playlist period. *Creator* may then be closed.

This process of generating a playlist does not need to be manual. Once you are up and running normally, it is possible for a playlist to be generated automatically every day or every week. If you have *StationPlaylist Studio* installed on the same PC, check the *Auto Playlist Creation* checkbox on the General options page in *Studio*. This will load *Creator* 30 minutes before the playlist expires and generate a playlist, and then *Creator* will exit.

When using *Auto Playlist Creation*, we recommend the start *Hour* to be set to midnight 00:00. It is generally easier to manage playlists that exist for an entire day.

If *Studio* is not installed on the same PC, [StationPlaylist Scheduler](#) included with *Creator* may be used for the same purpose. Load the *Scheduler* from the Windows Start menu / *StationPlaylist* menu. Check the [Auto Playlist Creation](#) and [Load Scheduler at Startup](#) checkboxes.

The track separation intervals default to 0 which disables all separation protection. You will most likely want to increase these to suitable values depending on legal or personal requirements. Alter the default settings on the [Separation Rules](#) options page. Typical values are: Song Interval: 9 - 18 hours, Artist Interval: 2.5 - 3 hours, Title Interval: 2.5 - 3 hours. Individual *Categories* may have their own interval settings in [Category Properties](#). You will receive track selection errors while generating a playlist if there is not enough tracks to satisfy the intervals.

By default, the playlist (M3U) files are created in the *StationPlaylist\Playlist* folder on the hard drive. *StationPlaylist Studio* and the [StationPlaylist Scheduler](#) utility will load the playlist files from this location automatically, assuming this software is installed in the same folder and on the same PC as *Creator*.

If you have *StationPlaylist Studio* installed, you can now load *Studio* and it will start playing the current hours playlist. For more details, see the *Getting Started* chapter in *Studio's* help documentation.

To stream the audio over the internet using *Studio*, see the *Internet Streaming* chapter in *Studio's* documentation.

Simplified Tutorial

These instructions are designed to use the least steps possible to generate a playlist in *Creator*, mainly for use with

StationPlaylist Studio.

For this purpose, all of your music files will be combined into one large *Category*. Normally, multiple categories are created based on song genre, tempo, age, etc, to provide more control over your station format or "sound", but you can organise this later once you have grasped the concept.

1. Click on the *Categories* menu button on the left, and click New. Enter a name of your choice (eg. *Music*), and in the Files & Folders area, enter the folder where all your music files are located. You may use the *Browse Folder* button to select the folder. This can be a folder with sub-folders containing the music. Click the *Include Subfolders* checkbox if required. Click OK.

Now check that the *Files* column on the right has a number greater than zero. If not then you have selected an incorrect folder or perhaps not ticked the *Include Subfolders* checkbox. Double-click the *Music* category to try again.

2. Skip this step if you have no Station ID's or jingles. Click on the *Spot Groups* menu button and click New. Name it *Station ID* or similar. Enter the file or folder containing the station ID or several Station ID's. Click OK. This is very similar to creating a *Category*.

- 3a. Click on the *Rotations* menu button and click New. Give it a name such as "Default". Drag the *Music* category on the left over to the *Rotation List* on the right several times until the *Approx Time* at the top exceeds 64 minutes (1:04:00). ie. You will need to drag the same category perhaps 12 to 15 times.

- 3b. If you did create a *Station ID* spot group, drag this perhaps 3 or 4 times over to the *Rotation List* between each 3rd category for example. Click OK.

4. Click on the *Schedules* menu button and click New. Give it a name such as "Default". Tick all days of the week and click OK.

5. Under the Options heading on the left menu, click on the *General* button and at the top left, select today's date and enter the number of days you wish to generate playlists. The default of 1 *Day* and 0 *Hours* is recommended. We also suggest leaving the *Start Hour* at 00:00 (midnight) at least at this stage.

6. If your player is *StationPlaylist Studio*, click on the *Playlist Format* menu button, and pull down the *Playlist Format* selection list and select "*StationPlaylist Studio*" from the list. If you are using a simple media player such as Winamp, select the "*Standard M3U*" format.

7. Click Save to save all your configurations.

8. Click the Create tool button, or *Create Playlist* File menu option. This will generate a set of playlist files, one for each hour. Click OK to close the status box.

9. Click Save again to save the scheduled dates for each selected track. You may exit Creator now.

The playlists are now ready to be loaded and played in Studio. If Studio is installed on the same PC, exit and re-start Studio, and the current hours playlist should load and start playing.

Once Creator is configured, you can have Studio load Creator every day to generate playlists automatically. See the *Auto Playlist Creation* option in Studio's documentation.

Once you have grasped the concept, we suggest reading through the [full tutorial](#) to get more out of the software.

Categories

A *Category* is a group of many audio files related to a particular genre, tempo, age, sex, or whatever criteria you wish to establish.

As with [Spot Groups](#), *Categories* are used to define an hourly [Rotation](#). The more *Categories* that are defined, the more control you have over the structure of each hourly [Rotation](#), and therefore more control over the station sound.

Categories are created & maintained in [Category Properties](#).

The *Categories* page, when in [Details View](#), shows all categories with columns for the *Category Priority*, a subset of the *Folders or Files* defined in *Category Properties*, the *Next Item*, and *Total* audio files in the category. *Next Item* is the next track that will be selected when the next playlist is created. The number in brackets is the current position in the [Track List](#) where selection will start from during the next playlist creation.

Individual tracks may have a date range, time range, and day of week selection applied to them. This may be useful for songs which should only be scheduled during the late evening or early morning, for example. These criteria may be entered in the *Schedule Restrictions* tab in the [Track Properties](#) available from the [Track List](#).

Category Properties

Use *Category Properties* to create and maintain Categories.

Name: Enter a unique name for the *Category*. The name may be renamed at any time on the Categories page. The name must contain valid filename characters. The characters < \ / : * ? " | > and # are not allowed.

Priority (Normal/High): Tracks from high priority categories will have their tracks selected first for the entire creation period, followed by the normal priority categories. High priority tracks will be selected more evenly without separation rules from less important tracks getting in the way. Only smaller/faster rotating categories will likely benefit from being set to a High priority.

Note 1: High priority categories should not be placed near the end of the hour in rotations, as this can lead to tracks being pre-selected that will not be required during the playlist creation phase, and cause uneven selections of the tracks. A playlist warning will be generated if this occurs.

Note 2: *Daypart* and *Hourpart Song Separation* will not be obeyed when the same song is scheduled from a *High* and a *Normal* priority category.

Note 3: The category priority is ignored in the following situations.

- The category is used as an *Artist Link* in *Rotation Properties*.
- The category is used as a Hook in *Rotation Properties*.
- The category is nested in a spot group.

Note 4: High Priority categories cannot be [Block](#) or [Single Attempt](#) category type.

Note 5: The duration of *Timed Events* scheduled in *Schedule Properties* (not *Rotation Properties*) will not be taken into account when selecting tracks from high priority categories, therefore any lengthy timed events between high priority tracks will be treated as if the events don't exist and separation rules could be more aggressive than that configured.

Notes: An optional field which may contain other information regarding the *Category*.

Files(s) or Folder(s)

The specific files, or folders containing audio files for this *Category*. Each file or folder must be entered on a new line. This box may be left empty and individual files added later using the [Track List](#).

Click [Add Folder](#) to select a folder to add. This just adds the folder name to the list, not the individual files within the folder.

Click [Add Files](#) to select one or more files to add from an Open File dialog. This function is disabled if a *Criteria* has been applied below.

Click [Clear All](#) to remove all files and folders from the list.

Files or folders may also be dragged and dropped or copy/pasted from Windows File Explorer, or copy/pasted from tracks appearing anywhere within *Creator* or *Studio*.

Windows shortcuts to files & folders may be inserted, but not recommended.

Individual tracks may be added and removed from spot groups using the [Track List](#). When folders are specified, the *Track List* cannot be used to remove tracks from a category.

There are advantages and disadvantages of using folders or individual files to define what tracks are in a category. See the [Folders and Files](#) chapter for more details.

If an EXE file or M3U file containing an internet stream URL is added, the duration of these files will be prompted for manual entry when saving the *Category*. These are generally only useful when using *StationPlaylist Studio*.

Add Packet (button): A [Packet](#) is a special *Spot Group* which may be nested in a category. This is similar but not identical to how a *Spot Group* can nest other spot groups or categories. Creator will select one track from the *Packet* during one pass through the *Category* [Track List](#). This may be useful for rotating a small number of tracks as if they are one track, such as different versions of the same song by the same artist, and therefore reduce the number of times these tracks will be selected.

Unlike a nested *Category* in a *Spot Group* which replaces the *Spot Group* with the *Category* in the rotation, the track selected from the *Packet* will appear in the playlist as if it is a part of the *Category*.

Packets may also be created, and songs moved into a packet, via the right-click menu item [Move to Packet](#) in the *Track List*.

Note: Tracks from a packet will always be available for selection and will ignore any *Criteria* added below.

Criteria (button): Opens a dialog where various [Track Properties](#) may be selected. This may be used with folders only. The criteria is stored permanently with the category.

When the category is scanned or loaded, Creator will automatically load only the tracks in these folders that match the criteria. Tracks will be added and removed from the category automatically as *Track Properties* are modified in the [Track List](#).

The *Genre*, *Mood*, and *Region* fields support *Any*, *All* or *Partial* matches.

All: Only tracks that include all the genres/moods specified in the Criteria will be included.

Any: Tracks that include any of the specified genres/moods will be included.

Partial: Tracks that include just a portion of the entered text will be included.

Note that multiple genres/moods/regions may be specified by separating them with commas in both the *Criteria* and/or [Track Properties](#), with the exception of *Partial* matches.

Some criteria support a from/to range.

Track Age uses the *Track Date* in [Track Properties](#) to determine the age of a track. This enables tracks to be automatically imported or moved between categories based on how old they are. The age is entered in Months.
eg 1. A Track Age of 0 to 0 Months includes tracks newer than approximately 30 days.
eg 2. A Track Age of 1 to 2 Months includes all tracks older than 30 days and newer than 60 days.
Leave the fields blank to ignore the age.

The Criteria button text will appear in a bold font when a Criteria has been set.

Note: The *criteria* will be ignored for any [packets](#) added to the category.

Switch to File Method (*button*): This button will only appear when the *Files or Folders* list contains folders. This will switch the category to using the *File Method* for defining the category, where each new track is individually added to the category in the [Track List](#). This is useful if you intend to move tracks from one category to another. See the *Getting Started* chapter [Folders and Files](#) for more details on the 2 methods.

Include subfolders (*checkbox*): If folders have been specified in the list above, all audio files in subfolders within the folders will also be included.

Average Time: A read only figure showing the average duration of all tracks in the *Category*. It is used in [Rotation Properties](#) for estimating the duration of a *Rotation*.

File Count: A read only figure containing the total number of audio files in the *Category*.

Sort Tracks (*radiobox*):

- **Random:** The tracks are reshuffled into a different order every time the list of tracks has been traversed from top to bottom. This is recommended so that all tracks will be selected in a different order next time through the list. This is not a fully random shuffle. Tracks that were selected more recently will be placed nearer the end of the new list.

- **Alphabetical:** The tracks will be selected alphabetically by filename. The current position in the list will rotate back to the top when the last track has been used.

- **None:** The tracks will not be sorted and stay permanently in the order specified. Individual files added to the list will be selected in the order they appear. Use the [Track List](#) to move tracks up or down the list into the required order. This may be useful for categories with a small number of files which are manually positioned into the desired order. The current position in the list will rotate back to the top when the last track has been used.

Reshuffle Now: This will force a one-off fully random reshuffle of the order of the tracks in an existing category, without regard of when the tracks were last selected. This setting only takes affect once and will appear disabled again.

Recycle: When checked enables [Recycle Category Tracks](#) for this category.

Category Type:

Normal: Category tracks are selected individually when the *Category* is used in a [Rotation](#).

Block: All tracks in the *Category* are added to the playlist in one block. Only one entry in a [Rotation](#) is required for all tracks in the category to be selected. This may be used where a group of tracks must be played sequentially, such as a complete CD. The Average Time above will reflect the total duration of all tracks in the category, rather than the average time. *Block Categories* generally should not contain more than 60 minutes of audio files.

Single Attempt: Similar to a *Normal* category except it will not attempt to select a track if the first attempt fails due to any of the separation rules. The usual "selection error" message will not occur. This is may be useful for a single artist category where the artist also exists in other categories, and selection would cause an artist separation violation.

Playlist Text Color: When *Specify* is selected, all tracks scheduled from this category will appear in the selected color rather than the [default color](#) for Category/Song.

Song Separation:

The minimum period of time between scheduling the same filename. The same path\filename found in other *Categories* is taken into account and will not be repeated within the interval. However, a copy of an audio file placed in another folder is regarded as a different song and can be repeated within this interval. Windows shortcuts to files, however, may be created and copied to other folders, and song repeat protection will work between the categories.

Default uses the *Default Song Separation* setting in the [Separation Rules](#). Otherwise select a value of between 0

minutes and 7 days by moving the track bar, or enter the number of minutes to a maximum of 99999 minutes (~69 days).

A value of 0 (zero) disables song repeat protection for this *Category*, and will also disable the global [Daypart Song Separation](#) for this category.

A song will not be repeated until the track list has been fully traversed, so a high song separation is usually not necessary and can cause selection errors if it is set too high.

A value of quarter the total duration of the category is a recommended maximum. ie. If the category has enough tracks for 4 days without repeats, we recommend a maximum song separation of 1 day. However, for best results and a more even selection of songs, it is best to keep the *Song Interval* as low as possible. We recommend a maximum of 9 to 12 hours for larger categories and much lower for smaller categories.

Artist Separation:

The minimum period of time between scheduling a song by the same artist.

Default uses the *Default Artist Separation* setting in the [Separation Rules](#). Otherwise select a value between 0 minutes and 7 days by moving the track bar, or enter the number of minutes to a maximum of 99999 minutes (~69 days).

A value of 0 (zero) disables artist repeat protection for this *Category*.

Generally, this interval should be kept as low as possible. A value of around 2.5 or 3 hours is typical. A large artist separation will result in many tracks being skipped in the track list and can result in some tracks being selected more than others as the track list is traversed more often.

Title Separation:

The minimum period of time between scheduling a song with the same title. This is useful for situations where several artists have recorded the same song. This is particularly useful for scheduling Christmas songs, for example.

Default uses the *Default Title Separation* setting in the [Separation Rules](#). Otherwise select a value between 0 minutes and 7 days by moving the track bar, or enter the number of minutes to a maximum of 99999 minutes (~69 days).

A value of 0 (zero) disables title repeat protection for this *Category*.

This interval should also be kept as low as possible. A value of around 2 or 3 hours is typical.

Default Album Separation:

The minimum period of time between scheduling songs with the same album title. This is only necessary for DMCA regulations, and a value of 60 minutes will prevent any violation of the regulations.

Default uses the *Default Album Separation* setting in the [Separation Rules](#).

A value of 0 (zero) disables default album separation for this *Category*.

Note: This should be disabled unless all tracks have either correct album names, or blank, or a mixture of the two. If many tracks have any other words such as "Unknown" in the Album field for example, those tracks will be considered from the same album and not selected very often.

Enabled Rules: Specify which *Minimum Separation/Max Back to Back* rules in the [Separation Rules](#) options will be utilized for this category. Rotation Properties can also control which of these rules are utilized.

A disabled rule takes precedence over enabled. If categories have a rule enabled and the rotation has it disabled, the rule will be disabled for all categories in the rotation.

[Daypart Song Separation](#), [Hourpart Song Separation](#), [Last Track Bias](#), and [New Track Bias](#) may also be enabled/disabled per category.

Spot Groups

A *Spot Group* is a group of one or more related audio files, usually containing short programmes such as station ID's, jingles, or advertisements. They may also be used to schedule lengthy programmes, such as a weekly series which runs in sequence. At default settings, tracks from spot groups are selected in alphabetical order by filename.

As with [Categories](#), *Spot Groups* are usually scheduled in [Rotations](#), but they may also be scheduled in the [Timed Spots](#) section of [Schedule Properties](#).

Spot Groups may also be used to insert matching song or artist introductions before or after *Category* items. See *Song Intro* and *Song Outro* options in [Spot Group Properties](#).

A special type of *Spot Group* can be used to define song packets, added to categories in [Category Properties](#) and the [Track List](#).

Spot Groups are created & maintained in [Spot Group Properties](#).

The *Spot Groups* page, when in [Details View](#), shows all spot groups with columns for the *Spot Group Type*, a subset of the *Folders or Files* defined in *Spot Group Properties*, the *Next Item*, and *Total* audio files in the spot group. *Next Item* is the next track that will be selected when the next playlist is created. The number in brackets is the current position in the [Track List](#) where selection will start from during the next playlist creation.

The list of *Spot Groups* may be sorted by *Name* or *Type* in the [View menu](#).

Individual tracks may have a date range, time range, and day of week selection applied to them. This may be useful for advertisements or spots that should only be scheduled for a certain number of days, for example. These criteria may be entered in the *Schedule Restrictions* tab in the [Track Properties](#) available from the [Track List](#).

Spot Group Properties (including Packet Properties)

Use *Spot Group Properties* to create and maintain *Spot Groups*.

Name: Enter a unique name for the *Spot Group*. The name may be renamed at a later date on the Spot Groups page. The name must contain valid filename characters. The characters < \ / : * ? " | > and # are not allowed.

Notes: An optional field which may contain other information regarding the *Spot Group*.

Client: An optional field which may contain an advertising client name or code. This information is output in the [Spot Summary](#) log file which may be used for client billing purposes. StationPlaylist Studio will also output this information in the played log.

If the Advanced option [Store data in file tags](#) is enabled, the client information is saved to the file tag of each audio file in the Spot Group. When this field is left empty, individual audio files in a spot group may have their own different client information stored against them. This may be entered in [Track Properties](#).

File(s) or Folder(s):

The list of specific files, or folders containing audio files for this *Spot Group*. Each file or folder must be entered on a new line, and duplicates are not supported.

Click [Add Folder](#) to select a folder to add. This just adds the folder name to the list, not the individual files within the folder.

Click [Add Files](#) to select one or more files to add from an Open File dialog.

Click [Clear All](#) to remove all files and folders from the list.

Files or folders may also be dragged and dropped or copy/pasted from Windows File Explorer, or copy/pasted from tracks appearing anywhere within *Creator* or *Studio*.

Windows shortcuts to files & folders may be inserted, but not recommended.

Often only one file or folder is assigned to a spot group, but many files or folders may be assigned.

Individual tracks may be added and removed from spot groups using the [Track List](#). When folders are specified, the *Track List* cannot be used to remove tracks from a spot group.

If an EXE file or M3U file containing an internet stream URL is added, the duration of these files will be prompted for manual entry when saving the *Spot Group*. These are generally only useful when using *StationPlaylist Studio*.

Nest (button): A spot group may contain other spot groups and/or categories along with normal tracks. This spot group is replaced with the nested spot group or category in the rotation.

Note that only 1 level of nesting is possible. You cannot add nested items to a spot group when that spot group also contains nested items. Note also that a spot group containing nested items cannot be a *Block*.

Examples of use include selecting a random category to play in a specific position in a rotation, or rotate multiple commercials by the same advertiser when the spot group contains commercials.

The dialog that appears only supports selecting the same category or spot group once, but once added to the *Files or Folders* list, may be copy/pasted multiple times if required.

Include subfolders (checkbox): If folders have been specified in the list above, all subfolders within the folders will also be included.

Average Time: A read only figure showing the average duration of all tracks in the *Spot Group*. It is used in [Rotation Properties](#) for estimating the duration of a *Rotation*.

File Count: A read only figure containing the total number of audio files in the *Spot Group*.

Spot Group Type:

This option defines how the *Spot Group* will be used in the track selection process.

 ***Normal:*** A normal *Spot Group* which can be used in [Rotations](#) or [Timed Events](#). One track will be selected from the *Spot Group* every time it is used in a [Rotation](#).

 ***Block:*** All items in the *Spot Group* are added to the generated playlist in one block. Only one entry in a [Rotation](#) or [Timed Event](#) is required for all tracks to be selected. This may be used where a group of tracks must be played sequentially, such as a group of community notices. The *Average Time* above will in fact be the total duration of the entire block.

Note that a *Block* spot group is not supported with *Nested* items.

Timed events scheduled in the same hour will appear in the playlist between items in the block.

 ***Song Intro:*** The *Spot Group* will be only used to insert an introduction for the upcoming Category item.

This feature provides for an automatic song or artist introduction to be included in the playlist prior to a song selected from a *Category*. This can produce the atmosphere of a live broadcast when fully automated.

Introductions are pre-recorded for preferably all songs or artists in the library, or at least all songs or artists in one particular *Category*. This can take some time, however once this is done, an unattended station can sound similar to a live show hosted by a DJ. With this in mind, we suggest Intro's often include some brief information about the

song, along with a station identification. For example,

"Here's Bering Strait, a band from Russia, with Jagged Edge Of A Broken Heart, on WKRP, Cincinnati's best Rock music".

This system is different to [Voice Tracking](#) which allows live announcements, including recent current affairs, to be pre-recorded for a show later in the day or week.

If recording an introduction for every song sounds like too much work, an introduction can be recorded for each artist instead, or each Year or Category name.

The [Intro/Outro File Tool](#) can be used to quickly record intros and outros for all songs in a category.

Creator will first look for a matching song introduction file. If one is not found, then it looks for an introduction file matching the artist only. If no artist introduction is found, then it looks for a file matching the Year. If no year introduction is found, then it looks for a file matching the Category name. If this is not found, then no introduction file is inserted in the playlist.

An example Artist introduction is: *"Here's Bering Strait, a band from Russia, on WKRP, Cincinnati's best Rock music".*

An example Category name introduction is: *"Here's some country-rock, on WKRP, Cincinnati's best Rock music".* This is only possible if you have separated your music genres into separate [Categories](#) and indeed have a Country-Rock category.

When using *StationPlaylist Studio Pro*, Song Intro's (and [Voice Tracks](#)) may be played simultaneously (overlapped) with the song ramp (non-vocal start) of the following song. This helps the broadcast sound completely live when unattended. See *Studio's* help documentation for more details on *Voice Intros*.

A *Song Intro* is generally inserted in a [Rotation](#) directly above a *Category*, although other spots may be scheduled in between the intro and the song, such as a commercial break. Whichever song is selected for the *category*, a matching intro file, if one exists, will be selected above it in the playlist.

Here is an example portion of a *Rotation*:

Station ID

Simon's Song Intros (Song Intro Spot Group)

Country Rock (Category)

etc

Simon's Song Intro's is a Spot Group containing introductions for songs or artists recorded by Simon. The same song or artist introductions can be recorded by different DJ's for emulating a live DJ shift at different times of the day.

As mentioned, above, other spots may be scheduled between a *Song Intro* and a *Category*. This can be used to introduce a song or artist coming up after the break, for example.

Here is an example portion of a *Rotation*:

Simon's After Break Artist Intros (Song Intro Spot Group)

\$5 Ads (Normal Spot Group)

Bike Shop Ad (Normal Spot Group)

Station ID (Normal Spot Group)

Country Rock (Category)

etc

Here we have a different Spot Group containing Simon's introductions for artists only, which mention the artist coming up after the break. In this case, the introduction file will be selected, if available, for whatever artist is selected from the *Country Rock* category. Obviously, this method will not produce song ramp overlapping in *StationPlaylist Studio Pro*.

Introductions are not normally placed in a rotation before every category item, otherwise the introductions would be overused and quickly become stale.

The matching of a song with an introduction file is based on the Artist and Title fields stored in [Track Properties](#). For a song match, the artist and title details of the introduction file must match exactly (case insensitively) the artist and title details of the song. For an artist match, the artist name may be in the artist **OR** title tag of the intro file, and the other tag must be left blank. For a Year match, the artist of the intro file must be blank, and the title must contain the 4 digit Year. For a *Category* name match, the artist of the intro file must be blank, and the title must match the name of the *Category*.

If filenames are being used rather than file tags (see the [Use file tags for Artist & Title](#) option), the filenames of the intro file and the song file must be identical, with a few exceptions. Filename matching is done case insensitively; the file extension may be different; and the *Intro Time* used for *StationPlaylist Studio* (#xx) is ignored. A tilde "~" character at the end of the filename followed by a number is ignored. When file tags are used to obtain the artist & title, the filenames are irrelevant.

More than one introduction may be recorded for one particular song or artist or *Category* name. Simply create two or more introductions with the required artist and title details. Each introduction will be selected in a rotation system so a different introduction is used each time the same song or artist is selected.

When using the filename to obtain the artist & title, the filename may contain the @ character followed by a number after the title. This specifies the position where the artist/title finishes. For example, if 3 artist introductions are available for the artist Cat Stevens, they could be named as follows.

Cat Stevens.mp3
Cat Stevens@1.mp3
Cat Stevens@2.mp3

A list of songs that do not have a matching introduction file may be viewed and printed in the [Intro/Outro File Tool](#) available on the [Tools Menu](#).

 **Song Outro:** A *Song Outro Spot Group* works almost identically to a *Song Intro Spot Group* except it is used to insert an outro file after a matching *Category* file. This is used to describe the song that just played. An *Outro Spot Group* must be placed in a *Rotation* directly after a *Category*. Here is an example portion of a *Rotation*:

Station ID (Normal Spot Group)
Country Rock (Category)
Simon's Outros (Song Outro Spot Group)
etc

Song Outro's will overlap the end of songs in *StationPlaylist Studio*, but by default, they will not overlap the song ramp of the following song. However, if an [Intro Time](#) is specified for an outro track, *Studio* will treat the track just like a voice track / song intro, which can then overlap the following song ramp. In this case, a negative [Intro Time](#) is recommended as this will overlap the end of the previous song associated with the outro, as well as overlap the start of the next song if a song ramp has been established. For more information, see *Studio's* documentation for the *Intro Timing* setting.

 **Voice Intro:** This group type is only for use with *StationPlaylist Studio Pro*. A *Voice Intro* type is similar to a *Normal* type, except selected tracks can play simultaneously with the song ramp of the next track in *Studio*. The spot will only "talk-over" the next track in the playlist if the track has an *Intro Time* set (see [Track Tool](#)). See *Studio's* help documentation for more details on *Voice Intro's*.

 **Voice Outro:** This group type is similar to *Normal* type, except Creator will ensure a *Voice Outro* is scheduled after the last song, even if the scheduling time exceeds 60 minutes for the current hour.

As with *Song Outro's* above, *StationPlaylist Studio* will not skip over a *Voice Outro* when it follows a song at the end of the hour, even if the time has ticked over to the next hour. The exception is instant timed events and instant Hour Markers. See *Studio's* help documentation for more details on *Voice Outro's*.

 **Commercial Intro:** This group type was designed for use with *StationPlaylist Studio Pro* in combination with 3rd party traffic/billing software, but can be used with tracks scheduled as *Commercial* (see below).

A *Commercial Intro* may be used to schedule spots immediately above and/or below a commercial break. These spots are special in that they will be skipped and not play in *StationPlaylist Studio* if no commercials exist in the playlist for a particular commercial break. This is most useful when importing commercials from a 3rd party traffic/billing application in the [Traffic Importer](#).

 **Commercial:** This is identical to a *Normal* spot except it appears in Creator and Studio with purple text and a traffic light icon. These tracks are also output to the Studio log files as a different track type for easier reporting.

 **Jingle:** This spot type is recognized in *StationPlaylist Studio* to prevent 2 or more jingles playing consecutively. This undesirable scenario can occur in *Studio* when instant timed events or a change of hour occurs. All consecutive jingles after the first one will be skipped. Jingles appear with a red/blue music symbol icon.

 **Packet:** This spot type is reserved for Category Packets. See [Packets](#) described in *Category Properties* for more details. Also see [Try All Packet Tracks](#) below.

Playlist Text Color: When *Specify* is selected, all tracks scheduled from this spot group will appear in the selected color rather than the [default color](#) for this *Spot Type*.

Intro Options: The following 3 checkboxes are available for *Song Intro* and *Voice Intro* types only.

With Intro Timed Songs Only (checkbox, default: *Unchecked*):

When checked, a *Voice Intro* or *Song Intro* spot will only be selected if the following song selected has an *Intro Time* greater than 0 (see [Track Tool](#)).

Short Intro Only (checkbox, default: *Unchecked*):

This is available when *With Intro Timed Songs Only* is checked above. When enabled, an Intro spot will only be selected if an Intro is available that is shorter in duration than the following songs intro time. This option is likely only to be useful when using multiple artist intros, not [Song Intros](#).

Only when song fits within hour (checkbox, default: *Unchecked*):

This will prevent a song intro being selected if Creator determines the next song will not finish before the end of the hour. This will likely only be useful when *StationPlaylist Studio* is set to start each hour instantly, and Top Up instrumental tracks are available in Studio to replace the track.

Sort Tracks (radiobox):

- **Alphabetical:** All tracks will be combined and selected alphabetically by filename.
- **Per Folder:** When 2 or more folders have been added to the list above, tracks are selected alphabetically within each folder, and the folders are recursed sequentially. ie. Tracks are selected alphabetically from the first folder, followed by all the tracks in the second folder, etc.
- **Random:** Spot items are shuffled into a semi-random order when Creator is loaded, and reshuffled when the last track has been selected. Spot item selection is made sequentially through the randomized list. Shuffling uses a basic separation algorithm in an attempt to prevent selection of the same tracks close to each other after a reshuffle.
- **None:** The tracks will not be sorted and stay permanently in the order specified. Individual files added to the list will be selected in the order they appear. Use the [Track List](#) to move tracks up or down the list.

Always start with first item (checkbox, default: *Unchecked*):

When enabled, at the start of each generation, the first item in the spot group is always selected first. When disabled, the first item selected is based on the last item selected in the previous playlist generation, in a rotating system. This option is available for all spot group types except *Song Intro*, *Song Outro*, and *Block* types.

Song Matching: Enables a spot to be selected which best matches the previous or next song, based on Genre, Mood, Tempo, Energy, Gender, Year (or Decade) set in *Track Properties*. If a Year jingle doesn't exist, it will match to a Decade jingle instead, which uses the first 3 digits of the *Year*. The spot that matches the most of these properties will be chosen.

Tempo and Energy separated by 1 setting is also taken into account. eg. A Medium tempo song will give some points to a jingle that has a Slow-Medium or Medium-Fast tempo when determining the best matching jingle to select.

- *Before Song*: Match to the next song.
- *After Song*: Match to the previous song.

Reshuffle Now: When *Randomly* is selected above, this will reshuffle the order of the tracks in an existing spot group. This may be useful after adding multiple files to the spot group, which otherwise will be shuffled and appended to the bottom of the track list. This setting only takes affect once and will be disabled again.

Include in Spot Summary: When enabled, usage details of the spots selected from this *Spot Group* will be saved to the [Spot Summary](#) log file. This may be used to include only advertisement spots in the summary, for example, and ignore jingles and station ID's.

Try All Packet Tracks (for *Packet Type* only): When unchecked (the default), the track with the oldest last scheduled date will always be attempted for selection before moving on to another track in the packet. This same track will continue to be retried in later positions if separation rules prevent it being selected in a specific position. This ensures each song in the packet is selected close to the same number of times.

When checked, if a packet track cannot be selected due to separation rules, other tracks in the packet will be attempted.

Next Item: This option is available for all spot group types except *Song Intro*, *Song Outro*, and *Block* types, once the spot group has been created.

This option may be used to select the next item to be scheduled from this spot group when the next playlist is created. The position in the list is stored between playlist creations, so changing this option is usually not necessary.

However, if a playlist needs to be re-created and overwritten, then it may be important to change this to the required item, particularly if the group contains a series of programmes that must be selected in order.

Track List

The *Track List* displays the list of audio files contained in *Categories* and *Spot Groups*. with various columns of information as stored in [Track Properties](#). Tracks may be also added, removed, copied, or moved to different categories/spot groups.

For this chapter all references to the words category or categories are also referencing spot groups.

Note: A track can only be moved or removed from a category if the track is not included in a folder specified in [Category Properties](#). See the [Folders and Files](#) chapter for more information.

The bottom right box displays all the categories. All files in a category may be viewed by double-clicking the category, or highlight one or more categories and click the **Show Files** button. Below this, the **Find Tracks** button may be used to display all tracks in all categories matching a portion of an artist, title, or filename.

The number of tracks loaded in the *Track List* and the total duration of the tracks are shown in the status bar.

When a track is selected/highlighted, the top right box shows the categories the track is currently a member of. A track can be in more than 1 category.

The size of these 2 boxes may be adjusted by dragging the vertical and horizontal splitters with the mouse.

The [No Category] item contains tracks not currently in a category. This can be thought of as a Recycle Bin.

When a track is removed from all categories, it will be moved here.

Creator can be set to [scan a folder](#) when Creator is loaded, and all tracks not in a category will be added to the [No Category] list.

The following functions are available from the right-click popup menu and/or buttons.

Track Properties (*also double-click*): For an audio file, this opens the [Track Properties](#) page which displays information regarding the selected file. Most of the information may be modified. The information includes the artist, title, intro time, duration, and last scheduled times. This is equivalent to the *Open* button on the tool bar. Multiple tracks may be selected and loaded for bulk modification.

For a *Packet*, this opens [Packet Properties](#).

Load In Track Tool: Load the selected tracks into the [Track Tool](#). This is equivalent to the *Track Tool* button on the tool bar.

Add Files To Category: This is equivalent to the *New* button. This loads an *Open File* dialog to add audio files to the loaded category. Audio files can also be added in [Category Properties](#), and dragged & dropped from a Windows folder.

Folders dropped onto the *File List* will result in the individual tracks in the folders being inserted, including all tracks in subfolders.

Note: This function is disabled if [Criteria](#) has been applied to the category.

Add Selected Tracks to Category: The blue + plus button on the right. This may be used to add the selected tracks to the selected categories on the right.

Note: This function is disabled if [Criteria](#) has been applied to the category.

Remove from Category: This is equivalent to the red - minus button. This removes the selected tracks from the categories selected in the *In Categories* box. If the track is in no other category, it will be moved to the [No Category] list.

This function is not available when the category loads tracks from a folder specified in [Category Properties](#).

Move to Packet (*Creator Pro only*): Removes the selected tracks from the category and adds them to an existing or new Packet. A dialog appears to select a packet or create a new one. All packets that currently exist in the category will appear in an italic font. See [Packets](#) described in *Category Properties* for more details.

This function is not available when the category loads tracks from a folder specified in [Category Properties](#).

Select All: Selects all the tracks.

Move Up: Move the selected track up one position to change the order the track will be selected. This function is only available when viewing a single category in ascending *Position* order. The position change will only be permanent for *Categories* and *Spot Groups* with the *Sort Tracks* option set to *None*.

Move Down: Similar to above, this moves the selected track down one position.

Play: Load the selected track in the [Preview Player](#). This is only available when the [Enable Track Preview](#) option is checked in the *General Options*.

Copy: Copies the selected tracks to the clipboard for pasting to a different category, the *Playlist Editor*, or *Studio*. Pasting in a text box, such as a web search engine, will paste the Artist - Title.

Paste: Pastes tracks to the end of the track list that have been previously copied to the clipboard from Windows File Explorer, *Playlist Editor*, or *Studio*.

Print All Tracks: Prints all tracks in the list to a printer device or file. Selecting *Print* from the right-click menu, or the Ctrl+P keyboard shortcut, will open a print dialog before printing. Using the *Print* button in the tool bar will print immediately without the dialog. It will include as many columns in the selected order that will fit on one line in a landscape report.

Copy all Filenames to the Clipboard: Copy the filenames of all files in the list, including the full path, to the Windows clipboard, which may then be pasted into any application supporting text pasting such as Notepad.

Copy all Titles to the Clipboard: Copy the artist and title information of all files in the list to the Windows clipboard, which may then be pasted into any application supporting text pasting such as Notepad.

Print Selected Tracks: Prints the selected tracks to the currently selected printer.

Copy selected Filenames to the Clipboard: Copy the filenames of the selected files, including the full path, to the Windows clipboard, which may then be pasted into any application supporting text pasting such as Notepad.

Copy selected Titles to the Clipboard: Copy the artist and title information of selected files in the list to the Windows clipboard, which may then be pasted into any application supporting text pasting such as Notepad.

Open File Location: Open Windows File Explorer at the folder containing the selected file.

Track List:

Much of the [Track Properties](#) data is displayed in separate columns. Columns may be moved using drag & drop, and the column sizes may be adjusted by dragging the column dividers. Columns cannot be added or removed. To not see a column, reduce the size so it is not visible or move it to the right.

The list may be sorted in ascending or descending order of any column data by clicking on the appropriate column header once or twice. Note that this does not change the order the tracks will be selected when creating a playlist. This may be done using the keyboard shortcuts Alt+1 through Alt+= to sort columns 1 through 12.

The *Position* column shows the current order the tracks will be selected in the category. The *Position* column changes to the name of the category when more than one category is loaded.

The track that will be selected next when the next playlist is created, appears in a highlighted color. This is also represented in the *Next Item* column on the Categories and Spot Groups pages.

The shaded tracks are those that have been selected so far in the current order. Tracks skipped over due to [Separation Rules](#) will appear unshaded. The [Track List Selected Color](#) may be adjusted in the *General* options. Note that categories are reshuffled into a new randomized order once the track list is traversed to the bottom, and selection starts again from the top with all tracks unshaded.

The *7 Days* column provides the number of times each track was scheduled in the last 7 days. This information is established from details stored in the database for the last 18 times each track was scheduled, therefore the maximum number displayed here is 18+. This figure may not be accurate when scheduling more than 1 day in advance.

Information appears in the *Date Restriction* column when a date or day/hour range has been entered in the *Schedule Restrictions* tab of [Track Properties](#). A day/hour range will simply contain the word *Yes* in the column. Tracks which have a Finish Year/Month/Day which has expired will appear in italic font.

Information about a track may also be displayed by hovering the mouse over the track icon to the left of the artist. The information displayed, if available in the file tags, is the Year, Album, Composer, Conductor, Comments, Hook times, Track Ending, and the last 18 times the track was scheduled and played. This information may be viewed or

entered in the [Track Properties](#) dialog. For a [Packet](#), hovering the mouse over the track icon will display the tracks in the packet. The information can be placed in a permanent window by clicking the track icon after hovering the mouse over it.

Rotations

A *Rotation* contains a set of [Categories](#), [Spot Groups](#) and optional non-audio items which define the template of an hourly programme. For each *Category* and *Spot Group* in the rotation list, an audio file is selected from the *Category* or *Spot Group*.

Rotations are used in [Schedules](#) to define which hours of the day, and which days of the week a rotation is used.

Rotations are created and maintained in [Rotation Properties](#).

You may see an example of a rotation in the [Getting Started](#) tutorial.

Rotation Properties

Use *Rotation Properties* to create and maintain [Rotations](#).

Name: Enter a unique name for the *Rotation*. The name may be renamed at a later date on the Rotations page.

Notes: An optional field which may contain other information regarding the *Rotation*.

Default (checkbox): One *Rotation* must be defined as the *default*. The *default Rotation* becomes the virtual *Rotation* named "...DEFAULT...". This provides any easy method to change the default rotation used in Schedules without editing the *Schedule*. The *Default Rotation* can not be deleted. The default must be moved to a different *Rotation* before it can be deleted.

Time Checking: When [Time Checking](#) is enabled on the *Advanced* options page, *Time Checking* may be disabled for this specific rotation when all defined items in the rotation must be scheduled regardless of the duration of the tracks selected. This enables rotations shorter or longer than 60 minutes to be defined.

Enabled Rules: Specify which *Minimum Separation/Max Back to Back* rules in the [Separation Rules](#) options will be utilized for this rotation. *Category Properties* can also control which of these rules are utilized.

A disabled rule takes precedence over enabled. If the rotation has a rule enabled and a category has it disabled, or vice versa, the rule will be disabled for that category.

Category and Spot Group Lists:

These boxes contain the [Categories](#) and [Spot Groups](#) that have been created. The divider line between these two boxes may be moved vertically to resize the boxes. The number of tracks in each is shown in brackets after each item.

Rotation List:

Add multiple *Category* and *Spot Group* items to the *Rotation List* to make up an hourly *Rotation*. During playlist creation, an audio track is selected from each *Category* or *Spot Group* in the order they appear in the *Rotation List*.

The estimated start time in relation to the start of the hour is placed before each item in the list. The start time is calculated from the average time of each *Category* and *Spot Group* item and is an estimate only. The actual time may substantially differ from the actual time the item will play, depending on the length of the specific tracks that are selected.

Category and *Spot* items may be added to the *Rotation* list in 5 ways.

1. Highlight a *Category* and click the top arrow button, or highlight a *Spot* item and click the bottom arrow

button

2. Double-click on a *Category* or *Spot* item to add it to the *Rotation* below the the currently selected *Rotation List* item.
3. Drag and drop the items to the required position in the *Rotation List*.
4. Press the Insert (Ins) key while a *Category* or *Spot* item is selected.
5. A right-click Popup menu is available for option 4.

When *Use Colored Items* is disabled in the [Advanced Options](#), *Spot* items are enclosed in {braces}, *Break Notes* appear prefixed with "****", and Voice Track Markers appear with "##".

In addition to the *Up* and *Down* buttons, *Rotation list* items may have their position moved by using drag and drop.

The approximate time of the *Rotation* is displayed at the top of the list. This is based on the average times of the tracks in each inserted *Category* and *Spot Group*. The time will appear in red when exceeding 70 minutes of items, when *Time Checking* is enabled (above). An allowance for shorter tracks needs to be taken into account when designing the rotation. Usually at least 65 minutes of items are required to ensure Creator has enough items to schedule 60 minutes of tracks.

When *Time Checking* is enabled, the last few items in the *Rotation List* may be skipped and not used if the current hour being generated calculates to more than 1 hour. However, *Break Notes* and *Timed Events* are never skipped.

Time Checking also provides for *Rotations* which are shorter than 1 hour. A *Rotation* will rotate back to the first item in the list if the current hour being generated calculates to less than 1 hour. In this case, only *Category* items are re-used, not *Spot Group* or *Break Note* items.

Rotation List Buttons:

Many of the following functions are also available from right-click popup menus.

Top Arrow: Inserts the selected *Category* item into the *Rotation List* above the selected item.

Insert Break Note: *Break Notes* are usually non-audio items in the playlist which may be used to provide a simple note to the DJ, or the text of an advertisement or announcement to read, or it can control aspects of a playback system. When the *StationPlaylist Studio Playlist Format* is selected, this option will load the [Studio Break Note Dialog](#) containing all the commands supported by *StationPlaylist Studio*. See the *Break Note* chapter in Studio's documentation for more details.

When other playback software is used, this option will display a simple dialog box asking for a Break Note Description. Refer to the playback system's documentation for the valid formats to enter into the description.

This option is not available when the [Break Note Format](#) is empty in the *Playlist Options*.

As with *Spots*, a *Break Note* may be converted to a timed event to execute at a specific time. See *Make Timed Event* below.

Edit Break Note: Edit the *Break Note* description. This is also available by double-clicking the *Break Note* item.

Make Timed Event: Converts one or more selected *Spot Groups* or *Break Notes* in the *Rotation List* to a *Timed Event*. This is likely only useful when using *StationPlaylist Studio* automation software. This button opens the [Timed Events](#) dialog. *Timed Events* may also be scheduled with a specific hour, minute, and second using the *Timed Events* facility in [Schedule Properties](#).

The [Spot Group Types](#) *Song Intro* and *Song Outro* cannot be timed events.

Edit Timed Event: Edit the details of an existing timed event. This option will only appear when a timed event is selected. This is also available by double-clicking a timed event.

Up & Down Buttons: Moves the selected item up or down the list. Drag & drop is also available for moving an item position.

Insert VT Marker (*Creator Pro*): *Voice Track Markers* may be inserted in locations where voice tracks are to be recorded via the [Record Multiple Voice Tracks](#) option in the [Playlist Editor](#).

Voice track markers are location markers which are not written to the playlist files. The markers are replaced with real audio files when recording voice tracks in the [Playlist Editor](#), however, when the [Generate VT Filenames](#) option is enabled, a unique filename, which doesn't yet exist, is chosen during playlist generation and inserted in the playlist. This enables *VT Replacements* to be inserted by *StationPlaylist Studio* if a voice track is not recorded.

A dialog appears asking the following:

Estimated Duration: An estimated duration of the voice track. This is only used to provide a more realistic total time for the rotation, which can prevent Creator over-scheduling the hour if a voice track is guaranteed to be recorded. A value of zero should be entered if a voice track may not be recorded.

Optional Description: An optional note for the DJ to read, which is displayed in the Title column in the [Playlist Editor](#), *Remote Voice Tracker*, and [playlist reports](#). Hover the mouse over the track icon to read a long note.

Link Artist (*Creator Pro*): Two or more tracks by the same artist may be scheduled in a row or anywhere in the hour. Highlight two or more categories in the rotation list before clicking *Link Artist*. These can be the same physical category or different categories which contain tracks by the same artists.

An artist is selected that appears in all the selected categories, and tracks are selected which don't violate any repeat intervals. If no artist is available for selection while creating a playlist, a *Linked Artist selection error* will occur.

A maximum of 10 links are possible.

Hint: You may place spots in between 2 or more artist linked categories.

Note: [Packeted](#) songs will not be included in artist links.

Make Hook (*Creator Pro*): Requires *Studio Pro* 5.2 or later. Small excerpts of songs may be added to the playlist, often a part of the chorus, to advertise the type of music the station plays, which can hook listeners in to staying tuned longer. Songs need to have *Hook Position* and *Hook Duration* set via the [Track Tool](#).

Insert a category and while highlighted, click the *Make Hook* button. A random track from the category that contains Hook timings will be selected in this location when creating a playlist.

Alternatively, *StationPlaylist Studio* supports inserting hooks advertising songs that are coming up in the playlist. Insert a Break Note and tick the *Insert Hook* checkbox. See Studio's *Break Note Codes* chapter for more details.

Hint: You may place spots in between 2 or more hooks, such as [Song Intro](#) spots containing artist introductions.

Nest Rotation: Inserts another rotation into this rotation. This may be used to insert smaller rotations with a specific set of spot groups and categories, to be used within multiple longer rotations. Nests within nests are supported.

Delete: Remove the selected items from the *Rotation*.

Bottom Arrow: Inserts the selected Spot Group item into the *Rotation List* above the selected item.

Select All/Copy/Paste: These items are available on the *Rotation List* right-click menu. One or more items may be selected and copied. A paste may be made to the same rotation, or to a different rotation.

Timed Events

Timed events are *Spots* or *Break Notes* which must execute at a precise time, or as soon as possible after the specified time. This is likely only useful when using *StationPlaylist Studio* automation software.

Only *Normal*, *Block*, *Commercial Intro*, and *Jingle* spot group types may be selected for a timed event.

When scheduling timed events in a [rotation](#), it generally does not matter where the timed event is placed within the *Rotation List*. Creator will move the timed event within the playlist to the approximate time position based on the duration of previously selected tracks in the hour. However, there are some best practices...

Events for the top of the hour (Minute 0) should be placed as the first items at the top of the rotation. Events for the end of the hour (Minute 60) should be placed as the last items in the rotation. All other event times should be placed at the approximate position it will play in the *Rotation List*.

Timed events may also be scheduled for a specific hour using the [Timed Events](#) feature in [Schedule Properties](#).

The *Timed Event* dialog has the following options.

Event Type:

A timed event can be set to *Play Next*, *Instant* or *Fixed*. This option may only useful when using *StationPlaylist Studio*.

Play Next will play the event after the scheduled time once the current track has finished playing.

Instant will truncate and fade whatever is playing at the scheduled time and play the event immediately.

Fixed is similar to *Instant* but with some differences in behavior. See the *StationPlaylist Studio* documentation for more information.

When multiple timed events are scheduled for the same time, the *Event Type* of the first timed event in the block will be used for the entire block.

Scheduled Time:

Enter the minute and second the timed event should be executed. An hour is not required since this event is scheduled in a *Rotation*, and a *Rotation* is scheduled for specific hours of the day in a *Schedule*. Whenever the *Rotation* is used in a *Schedule* time slot, the timed event will occur in that hour at the specified minute/second.

Timed Events scheduled for the top of the hour will always be selected prior to any rotation items. eg. 14:00:00

Timed Events scheduled for 60 minutes and 0 seconds past the hour will always be scheduled as the last items in the hour after all rotation items. eg. 14:60:00.

In *StationPlaylist Studio*, these end-of-hour *Timed Events* have a special significance. They will be played at a calculated time so that the last event finishes precisely at the top of the hour. See *Studio's* help documentation for more details.

Studio Break Notes

This dialog is only available when the [Playlist Format](#) option is set to the *StationPlaylist Studio* format.

StationPlaylist Studio supports break notes for various purposes. A break note can be used to display some information, such as a reminder to the DJ, or an advertisement or announcement to read live on-air. Studio can display a whole page of text by moving the mouse over the break note track icon.

Break Notes can also be used to take live audio feeds via the soundcard for a specific duration.

Studio also supports special codes to control some of Studio's settings and features. such as insert time

announcement markers, time markers, voice track markers, commercial break markers, etc.

This dialog provides a checkbox for each break note code supported by Studio. Check one or more checkboxes to add a break note code to the playlist. Many of the options require additional information to be entered or selected. Alternatively, a supported code may be entered directly into the *Note* field.

See the *Break Notes* chapter in *StationPlaylist Studio's* help documentation for details of the codes Studio supports.

An optional *Note* of any length may be entered including multiple lines. This is displayed in the *Title* column in the [Playlist Editor](#) and *Studio*. Multiple lines can be displayed by moving the mouse over the break note icon.

Break Note codes may be hidden from *Voice Track Editor* users by adding the word **VTHIDE** in uppercase anywhere in the *Note* field.

The *Concurrent Timed Event* checkbox adds a flag to the break note code which tells Studio to execute the code at a specific time without truncating the current track playing. Codes that can insert multiple tracks are not supported, but codes such as time announcements which play one track are supported, and will play using the Cart player in Studio.

A *Duration* may be entered where a break note is executed for a specific period. This is usually used to take live feeds via the soundcard line input.

Break Notes which play an audio file such as a *Play Cart Track* or *Play A Folder* may also have a duration, for the purpose of informing Creator how long the track is likely to play for. Creator will take this into account when scheduling 60 minutes of tracks from a rotation. Studio will ignore this duration and will use the actual duration of the track inserted.

Creator Specific Break Notes:

There are 2 break note codes that affect Creator's scheduling.

Time Marker: This function is likely only useful when used with *StationPlaylist Studio*.

A *Time Marker* provides for the situation where the current play position must be moved down the playlist to a new position at a specified time. Tracks in between the current position and the *Time Marker* will be skipped and not played in *StationPlaylist Studio*, similar to an *Hour Marker*.

A *Time Marker* is set as a timed event, either *Instant* or *Play Next*, and is only useful when scheduled from a Rotation.

This feature may be used to schedule in 30 minute blocks of time, for example, rather than a whole hour. It also makes it possible to follow a stop set or commercial break with specific programming such as specific categories of music. In some cases, this feature may replace the need for multiple timed spots in a row.

The position of the *Time Markers* in the Rotation is important. In *Studio*, if the current position in the playlist is below the *Time Marker* when the event time occurs, the *Time Marker* will be ignored. If it is important the tracks following the *Time Marker* must start precisely at this time, an extra track or 2 should be scheduled before each *Time Marker*. This will increase the required duration of the Rotation by roughly 4 minutes per *Time Marker*.

If not enough tracks are scheduled prior to a Time Marker, as mentioned, the Time Marker will not have any effect. When this situation is detected, a warning message will be reported in the [Generate.Log](#) file while generating a playlist.

Creator's [Time Checking](#) feature ensures that no more than 60 minutes of tracks are scheduled in an hour, so when *Time Markers* are used, Creator needs to take these extra tracks mentioned above into account when calculating the running time for the hour. Creator will reset the running time calculation to the event time of each *Time Marker* as it is passed over in the rotation.

Unpredictable results could occur in *Studio* if a Time Marker is scheduled close to other timed events.

Over Schedule: A special break note code may be used to over schedule one track in any hour the break note is used. Also see the [Over Schedule](#) (tracks/hour) option on the Advanced options page. Simply insert the words [Extra Track](#) into the *Note* field and one extra track will be scheduled for the hours the break note is used. Insert the break note twice for 2 extra tracks. This break note will not be output to the playlist.

Reserve Time for Live Announcements:

Ignore In Studio checkbox (***Z**) may be used to reserve time for live announcements in *StationPlaylist Studio*. A duration applied to this break note will only be utilized by Creator to prevent tracks being scheduled that will never be played. The duration will be ignored by *Studio* and skipped over.

Invisible checkbox (***Z1**) is a variation of this break note which will not appear in *Studio*'s playlist viewer at all.

Schedules

A *Schedule* contains a list of the [Rotations](#) that will be used for each of the 24 hours of a day.

A *Schedule* may be used for one or more days of the week. If the station format does not differ from day to day, then only one *Schedule* may be required. When different rotations are required every day, then 7 *Schedules* may be required.

Schedules can be created for special days of the year and not used until required.

Each *Schedule* may also contain [Timed Events](#) to be scheduled for a specific time of the day.

Schedules are created and maintained in [Schedule Properties](#).

You may see an example of a schedule in the [Getting Started](#) tutorial.

Schedule Properties

Use *Schedule Properties* to create and maintain *Schedules*.

Name: Enter a unique name for the *Schedule*. The name may be renamed at a later date on the Schedules page.

Notes: An optional field which may contain other information regarding the *Schedule*.

Rotations List:

All existing Rotations appear here, plus the following virtual rotations:

...DEFAULT...	When a generating a playlist, this will be replaced with the <i>Rotation</i> that currently has the Default checkbox checked (ticked).
...SILENT...	This will produce a playlist containing a one hour break note with a *L0 code. This may be used when audio is not required for specific hours of the day. This is only compatible with <i>StationPlaylist Studio</i> .
...NONE...	This will prevent a playlist file being created for the hours where this is scheduled. It is only likely to be of use when generating hourly playlist files for <i>StationPlaylist Studio</i> or StationPlaylist Scheduler . This option is useful when the hour's playlist already exists and should not be overwritten, or when tracks for this hour will be later inserted manually using the Playlist Editor , or when a previous rotation is 2 hours or longer.

Schedule List:

A table containing the [Rotations](#) to be used for each of the 24 hours in a day.

Creating a new *Schedule* will fill the *Schedule List* with the virtual ...*DEFAULT*... rotation described above.

Attach other *Rotations* to the hours where a different programme is required. Rotations may be attached to the *Schedule* in the following ways.

1. Click the single arrow button to attach the selected *Rotation* to the currently selected hour.
2. Click the double arrow button to attach the selected *Rotation* to all hours in the *Schedule*.
3. Double-click a *Rotation* to attach it to the currently selected hour.
4. Drag and drop a *Rotation* to the required position in the *Schedule*.
5. Press the Insert (Ins) key while a *Rotation* is selected.
6. Press Shift+Insert to attach the selected *Rotation* to all hours in the *Schedule*.
7. A right-click popup menu is available.

Replay an Hour:

Replays a previous hours playlist at the selected hour.

A previous hours playlist may be repeated at a later hour the same day or any future day. This option is only available when generating a [Separate Playlist For Each Hour](#) as required by *StationPlaylist Studio* and the [StationPlaylist Scheduler](#) utility.

A dialog will be displayed to select the day of the week and hour to repeat. The generated playlist file for the current hour will include the playlist file for the original hour. Any changes made to the original hour using the [Playlist Editor](#) will also change what is played in the repeated hour, including inserted voice tracks or commercials.

Timed Events (list): A list of [Spot Groups](#) and/or *Break Notes* to be inserted into the playlist at specific times of the day. See [Timed Events](#) for more details. *Timed Events* may also be scheduled in [Rotations](#).

Schedule Restrictions:

Days of the Week (checkboxes)

The days of the week the *Schedule* will be used.

Only one *Schedule* can be used on any particular day, so generally a maximum of 7 schedules are possible, however, it is possible to create schedules with no days of the week ticked. This may be useful for defining special programming for a day in advance, and when the time comes, tick the day of the week checkbox before a playlist is generated.

Checking a day checkbox that is already checked in another *Schedule* will prompt to remove the day from the other schedule. The exception is schedules with *Advanced Restrictions* (below).

A right-click popup menu is available to *Select All Days*, *Select All Weekdays*, or *De-select All*.

Advanced Restrictions tab (Creator Pro only)

Schedules can be defined for specific days of the year by specifying a range or years, and/or months, and/or days of the month. Use the drop down boxes to select a specific date from a calendar.

Use the *Copy Start* button to copy the Year,Month,Day settings from the Start to the Finish.

Schedules with an advanced restriction take precedence over those that don't.

The days of the week checkboxes also need to be checked before the *Schedule* will be used.

Two or more schedules may be defined which overlap the same day, but Creator will select only one schedule to use on any particular day. For example, one *Schedule* has Month from December to December with no Years or Days selected, and another schedule has Day 10 to Day 17 with no Years or Months selected. From December 10

to December 17, these 2 schedules are eligible for use. If this situation occurs, Creator will select one of the *Schedules* based on a score value as follows.

Year selected = 2
 Month selected = 3
 Day selected = 4

In the example above, from December to December scores 6. From Day 10 to Day 17 scores 8, so a day range takes precedence over a month range. A restriction which incorporates a Month and Year range will score 10 so takes precedence over a day range.

When a From Day is left blank, a value of 1 is assumed, but this does not add to the scoring above. When a To Day is blank and a To Month is selected, the last day of the month is assumed.

It is possible to use a month range which goes past the end of the year. For example, selecting months from November to February will incorporate 4 months.

Advanced Schedule date ranges appear in a column on the Schedules page in the format yymmdd, eg. Nov30-Jan02

Timed Events

Timed events are *Spots* or *Break Notes* which must execute at a precise time, or as soon as possible after the specified time. This is likely only useful when using *StationPlaylist Studio* automation software.

Only *Normal*, *Block*, *Commercial Intro*, and *Jingle* spot group types may be selected for a timed event.

These items will be inserted in the playlist as close as possible to the selected time based on the duration of previously selected tracks in the hour.

Timed events can also be scheduled within a [Rotation](#).

Use the buttons or right-click popup menu for the following functions:

New	Open Timed Event Properties to create a new <i>Timed Event</i>
Properties	Open Timed Event Properties to edit the selected <i>Timed Event</i>
Delete	Delete the selected <i>Timed Event</i>
Copy All	Store the entire list of <i>Timed Events</i>
Paste	Paste the stored <i>Timed Events</i>
Add Time	Add or subtract time from all the timed events. A dialog will ask for the number of minutes, positive or negative.
Up/Down	Multiple <i>Timed Events</i> scheduled for the same time may be moved to change the order the events are scheduled.

Copy All and *Paste* is used to transfer all the *Timed Events* from one Schedule to other Schedules.

A *Timed Event* scheduled for the top of the hour will always be selected prior to any rotation items. eg. 14:00:00.

A *Timed Event* scheduled for 60 minutes past the hour will always be selected as the last item after all rotation items. eg. 14:60:00. In *StationPlaylist Studio*, these end-of-hour *Timed Events* will be played at a calculated time so that the last spot finishes precisely at the top of the next hour.

Timed Event Properties

Event Type:

This option may only be useful when using *StationPlaylist Studio*. A timed event can be set to *Play Next*, *Instant* or *Fixed*.

Play Next will play the event after the scheduled time once the current track has finished playing.

Instant will truncate and fade whatever is playing at the scheduled time and play the event immediately.

Fixed is similar to *Instant* but with some differences in behavior. See the *StationPlaylist Studio* documentation for more information.

When multiple timed events are scheduled for the same time, the *Event Type* of the first timed event in the block will be used for the entire block.

Track Type:

Select *Spot Group* to insert a timed spot, or *Break Note* to insert a timed break note.

Hour/Minute/Second:

Enter the time the timed event should be executed.

Timed Events scheduled for the top of the hour will always be selected prior to any rotation items. eg. 14:00:00

Timed Events scheduled for 60 minutes past the hour will always be selected as the last items in the hour after all rotation items. eg. 14:60:00. In *StationPlaylist Studio*, these end-of-hour *Timed Events* have a special significance. They will be played at a calculated time so that the last event **finishes** precisely at the top of the hour. See *Studio's* help documentation for more details.

Spot Group:

If *Spot Group* was selected for the *Track Type* above, select the required [Spot Group](#) from the list. Only [Normal](#), [Block](#) and [Voice Intro](#) type *Spot Groups* will be available for selection.

Edit Break Note:

If *Break Note* was selected for the *Track Type* above, click the Edit Break Note button to enter the break note.

Break Notes are usually non-audio items in the playlist which may be used to provide a simple note to the DJ, or the text of an advertisement or announcement to read, or it can control aspects of a playback system. When the *StationPlaylist Studio* [Playlist Format](#) is selected, this option will load the [Studio Break Note Dialog](#) containing all the commands supported by *StationPlaylist Studio*.

When other playback software is used, this option will display a simple dialog box asking for a Break Note Description. Refer to the playback system's documentation for the valid formats to enter into the description.

This option is not available when the [Break Note Format](#) is empty in the *Playlist Options*.

Related Artists

Related Artists is used for the situation where two or more artists need to be considered as the same artist as far as the [Artist Separation Rule](#) is concerned. This is often necessary for artists known by more than one name, or where an artist has recorded as a solo artist and also in one or more bands or groups.

Click *New* to enter a new set of Related Artists. The *Primary Artist* is the artist that all *Secondary Artists* will be referred to as when internally testing the *Artist Separation*. It is recommended that at least one song exists in your library with the name of the *Primary Artist*.

The artist names may be entered case insensitively.

The same artist may appear in 2 or more records as *Secondary Artists*.

For duets and songs performed by more than one artist, and these artists are generally considered solo artists and

have individual songs in the library, this will require a separate *Related Artist* record for each individual artist.

For example, a duet by "Michael Jackson & Paul McCartney" will require 2 related artist entries.

1. *Primary*: Michael Jackson. *Secondary*: Michael Jackson & Paul McCartney
2. *Primary*: Paul McCartney. *Secondary*: Michael Jackson & Paul McCartney

However, in the case of artists which are closely tied together like The Beatles, you would only need one related artist record as in Example 1 below.

A *Primary Artist* may appear as a *Secondary Artist* in another record if required.

Examples:

1. *Primary*: The Beatles. *Secondary*: Paul McCartney; John Lennon; George Harrison; Ringo Starr
2. *Primary*: John Lennon & Yoko Ono. *Secondary*: John Lennon; Yoko Ono

In example 1, all 5 artists will be regarded as *The Beatles* and none of them will be scheduled within the *Artist Separation* interval.

Example 1 and 2 both contain *John Lennon*, therefore a *John Lennon* track will not be scheduled within the *Artist Separation* interval of *The Beatles* or a "*John Lennon & Yoko Ono*" track.

Related Titles

Related Titles is used for the situation where two or more titles need to be considered as the same title as far as the [Title Separation Rule](#) concerned. This is often necessary for titles with the same tune but have a different title, such as some Christmas songs, or the same song in a different language.

Click *New* to enter a new set of Related Titles. The *Primary Title* is the title that all *Secondary Titles* will be referred as when internally testing the *Title Separation*.

The title names may be entered case insensitively.

Options

The *Options* are spread over the following 5 pages.

► [General](#)

► [Separation Rules](#)

► [Playlist Format](#)

► [Advanced](#)

► [HTML / VT](#)

General Options

Next Playlist starts:

Specify the *Day* and *Hour* the next playlist is required to start from. This date is automatically incremented to the next creation date when a *Save* is executed after generating a playlist. ie. If the *Days* option is set to 7 days, the date will be incremented by one week

Playlists may be generated for up to 90 days, the norm being 1 or 7 days.

Creating a playlist every day is most common when changes to the playlist format are made regularly, such as adding and removing advertising or songs.

These settings are transferred to the [Playlist Creation](#) dialog when you click *Create Playlist* from the File menu or tool bar button.

Auto Increment Hour:

When the *For Hours* option is non-zero, and *Auto Increment Hour* is enabled, the *Start Hour* will be incremented by the number of hours being generated when a *Save* is executed.

Note: The *Start Day & Hour* is always incremented when a playlist is created automatically from [StationPlaylist Scheduler](#) or *StationPlaylist Studio*.

Logging Options:

With *Track Summary* checked, a file is created each time a playlist is created containing a list of all tracks used in the playlist, along with the number of times each track was used. This could be suitable for royalty reporting requirements. The filename format is based on the starting day and hour of the playlist: *Track-mmmddhh.csv*. eg. *Track-Oct3100.csv*

The *Track Summary* log file includes the following data if available: Times used during the generation, Artist, Title, Album, Composer, Record Label, CD Code (EAN/UPC or catalog number), and ISRC code. Apart from the Artist and Title, the additional information must be entered in the [Track Properties](#) available from the [Track List](#), otherwise these fields will be blank.

Note: The *Track Summary* will take a substantial time to produce and is not recommended. Studio's *General Log* can provide better reporting of songs and spots played.

With *Spot Summary* checked, a file is created at each playlist generation containing a list of all the spots used in the playlist, and the dates/times used. This can be used for billing purposes. The filename format is based on the starting day and hour of the playlist: *Spot-mmmddhh.csv*. eg. *Spot-Oct3100.csv*

The Spot Summary includes the following data: Spot Group, Client, Filename, Duration, Times used.

The Client name or code is entered in [Spot Group Properties](#) or [Track Properties](#) and may be used to identify the Client for billing purposes.

Both the *Track Summary* and *Spot Summary* files may be loaded directly into a spreadsheet, or printed as a report in the [Playlist Editor](#). The files are stored in the location specified in the *Log Folder*. The log files should not be manually modified if the *Playlist Editor* is to be used to print the information.

The following files are also created in the *Log Folder*:

mmddhh.plg (eg. *Oct3100.plg*) contains intermediate playlist creation information used internally by *Creator* and the *Playlist Editor*.

Generate.log contains a basic summary of the last playlist creation, as it appeared on the screen. This file should be checked for selection errors when using [StationPlaylist Scheduler](#) or *StationPlaylist Studio* to automatically generate playlists.

Genyymmdd-hh.log (eg. *Gen061231-00.log*). This is identical to the last created *Generate.log* above. Old logs can be viewed for selection errors.

TrafficImport.log contains a summary of the last import of commercials from a 3rd party traffic log file. See [Traffic Importer](#).

Files are automatically deleted from the *Log Folder*. See the [Delete Generated Files](#) option in the *Advanced Options*.

Auto Backup Data:

When enabled, Creator's configuration data files will be copied to the *Backup Folder* (below) when a *Save* is executed. This is equivalent to selecting the [Backup Data](#) option on the *Tools Menu*. The backup occurs before the current information is saved. If a problem occurs with a *Save*, a [Restore Data](#) may be necessary.

Exclude Options:

When checked, the automatic backup will not backup any settings from the Options pages. This is useful if the *Backup Folder* (below) is set to a folder on another PC with a backup installation of *Creator* installed. This makes it possible to automatically synchronize the data on the backup PC, but exclude the options data which could cause problems on the backup PC. The *Auto Backup Data* checkbox should be disabled on the backup PC.

Backup Folder:

The folder where the configuration files are copied when an automatic or manual [Backup](#) is executed. This may be a folder on another PC on the LAN.

Track Background Color: Click to select the background color to be used where colored items/tracks are displayed throughout Creator. This affects the Categories, Spots, Track List, Rotations, Schedules, and Playlist Editor. The default is *Black*. To use standard Windows colors, select *White*.

Note: Any color selected other than *White* will use a gray green color for all other windows. This cannot be adjusted.

Track List Selected Color: Click to select the shaded color of tracks in the [Track List](#) that have been selected in a playlist in the current shuffled order. The default is a dark purple when using the default *Black* for the *Track Background Color* above. Set to any other color will default to a light green.

Default Track Colors: Displays a dialog to select the default font color for displaying Songs, Spots, Commercials, Voice Tracks, etc throughout Creator. The same colors will be used in *StationPlaylist Studio* if installed on the same computer.

Note that each [Category](#) & [Spot Group](#) can have a custom color selected which will override the default color.

Use Colored Items: When enabled, *Categories*, *Spot Groups*, *Rotation Properties*, the *Track List*, and the *Playlist Editor* will use a font color to help differentiate the different item/track types.

Auto Print Playlist:

Prints the playlist automatically after a playlist has been generated. A playlist may be printed manually using the [Playlist Editor](#).

To print only a portion of the day, use the *Print Playlist* option in the *Playlist Editor* to change the From/To Hour range and check the *Save Hour Range* checkbox.

Printing the playlist to a PDF file is possible by installing the following free PDF printer driver.
[CutePDF Printer Driver](#)

Maintenance Tool Tips: When enabled, tool tips will appear when hovering the mouse over some of the controls in *Category*, *Spot Group*, *Rotation* & *Schedule Properties*.

Large Tool Buttons: When enabled, will display large tool buttons with text captions in the tool bars at the top of the main *Creator* window and the [Playlist Editor](#). When disabled, small tool buttons with no captions will be displayed.

Default Instant Timed Events: When enabled, [timed events](#) will default to "*Instant*". When disabled, timed events will default to "*Play Next*". This setting can easily be changed from one or the other when creating a timed event, but this provides the default setting.

Stay On Top: When enabled will force the main *Creator* window to stay visible on the desktop at all times, regardless of other applications running. This does not affect other windows opened from *Creator* such as *Category Properties*.

Enable Track Preview: When enabled, tracks may be played in the [Playlist Editor](#), [Track List](#), and [Track Tool](#). This option should only be enabled when *Creator* is installed on a different PC to the broadcast PC, or when two soundcards are installed and the preview player is set to play out the second soundcard. Use the [Configure](#) button to specify the soundcard to use for the preview player when 2 soundcards are installed. See the [Preview Player](#) chapter for more information.

Separation Rules

These options affect the selection of tracks from categories only. Spot Groups are not affected.

Rules should be kept to a minimum to allow a better/even selection of tracks. Too many rules or excessive settings can cause many songs to not be available for selection during one pass through the [Track List](#), and some songs or artists can be selected more than others. See the [Track Selection Logic](#) section of the *Playlist Creation* chapter for more details.

Default Song Separation:

The default minimum period of time between scheduling the same filename. This default setting is only used when the *Song Separation* in [Category Properties](#) is set to *System Default*.

The same physical file (same path\filename) used in other *Categories* is taken into account and will not be repeated within the interval. However, a copy of an audio file placed in another folder is regarded as a different song and can be repeated within this interval.

Select a value of between 0 minutes and 7 days by moving the track bar, or enter the number of minutes to a maximum of 999999 minutes. A value of 0 (zero) disables default song separation.

A song will not be repeated until the track list has been fully traversed, so a high song separation is usually not necessary and can cause selection errors if it is set too high.

A value of quarter the total duration of the category is a recommended maximum. ie. If the category usage has enough tracks for 4 days without repeats, we recommend a maximum song separation of 1 day. However, for best results and a more even selection of songs, it is best to keep the *Song Separation* as low as possible. We recommend a maximum of 9 to 12 hours for larger categories and much lower for smaller categories.

Default Artist Separation:

The default minimum period of time between scheduling a song by the same artist. This default setting is only used when the *Artist Separation* in [Category Properties](#) is set to *System Default*.

Select a value of between 0 minutes and 7 days by moving the track bar, or enter the number of minutes to a maximum of 999999 minutes. A value of 0 (zero) disables default artist separation.

Generally, this interval should be kept as low as possible. A value of around 2.5 or 3 hours is typical. Large artist separation will result in many tracks being skipped in the track list and can result in some tracks being selected more than others as the track list is traversed more often.

Default Title Separation:

The default minimum period of time between scheduling a song with the same title. This is useful for situations where two or more artists have recorded the same song, such as Christmas songs for example. This default setting is only used when the *Title Separation* in [Category Properties](#) is set to *System Default*.

Select a value of between 0 minutes and 7 days by moving the track bar, or enter the number of minutes to a maximum of 999999 minutes. A value of 0 (zero) disables default title separation.

This interval should also be kept as low as possible, below the *Song Separation* interval. A value of around 2.5 or 3 hours is typical.

Default Album Separation:

The default minimum period of time between scheduling songs with the same album title. This is only necessary for DMCA regulations, and a value of 60 minutes will prevent any violation of the regulations. This default setting is only used when the *Album Separation* in [Category Properties](#) is set to *System Default*.

A value of 0 (zero) disables default album separation.

Note: This should be disabled unless all tracks have either correct album names, or blank, or a mixture of the two. If many tracks have any other words such as "Unknown" in the Album field for example, those tracks will be considered from the same album and not selected very often.

Daypart Song Separation:

This global setting has 2 similar functions.

1. Prevents the same song from repeating within (plus or minus) the specified number of minutes of the same time the next day. This is used for high rotation categories (eg. Top 20) with a *Song Separation* of 24 hours or less. This can prevent a listener from hearing the same song two days in a row during a lunch break, for example.
2. Prevents the same song from repeating within the specified number of minutes of the same time, when the song is next selected to play, regardless of the number of days in between. This is used for larger categories that may rotate every few days.

A value of 0 (zero) disables the option. Values longer than 120 minutes are generally not recommended. A *Song Separation* of zero will also disable this option. *Daypart Song Separation* can be enabled/disabled for individual categories in [Category Properties](#).

While Creator is selecting from [recycled tracks](#), Daypart separation works over the last 2 scheduled times.

Here is an example using a typical setting of 90 minutes:

If a particular song played at 12 noon on Monday, the same song would not be scheduled between 10:30am and 1:30pm on Tuesday, or whenever the song is next selected.

Hourpart Song Separation:

This global setting is likely only useful for categories that rotate very quickly such as Top 20, where the same song could be scheduled within 2 or 3 hours. Similar to *Daypart Song Separation* above, this will force songs to be scheduled in a different part of the hour than it was last time.

For example, set to the maximum of 20 minutes, if a song was scheduled at 30 minutes after the hour, next time it can only be scheduled between :50 and :10.

A value of 0 (zero) disables the option. A *Song Separation* of zero will also disable this option. *Hourpart Song Separation* can be enabled/disabled for individual categories in [Category Properties](#).

While Creator is selecting from [recycled tracks](#), Hourpart separation works over the last 2 scheduled times.

Related Artist Separation:

This is a percentage of the Artist Separation and enables a lower separation for songs that are separated due to the [Related Artists](#) feature. It works with the default and custom *Artist Separation* settings within [Category Properties](#). The minimum value is 50%.

For example, a *Related Artist Separation* set to 50% will result in a category with a 4 hour *Artist Separation* having a minimum 2 hour separation for all related artists.

Minimum Separation/Max Back to Back (*Pro edition*): These options may be used to prevent too many similar tracks from playing close together without the need to create separate categories.

The track information stored in [Track Properties](#) is used. The Year field is used to determine the *Decade*.

Either *Minimum Separation* OR *Max Back to Back* may be selected for a specific track criteria, not both.

Any spots or break notes in between category tracks will be ignored and not counted.

These separation rules may be individually enabled/disabled in each category and rotation properties. This is useful if a category or rotation doesn't need to abide by these rules, such as an all fast tempo show.

Minimum Separation: Tracks in categories with the same criteria - Genre, Mood, Language, Tempo, Energy, Decade, Year, or Gender may be separated by a specific number of tracks. 0 is disabled.

Genre, Mood, and Language, and Year have a maximum setting of 4. Tempo, Energy and Decade have a maximum of 3, and Gender is 1. For example, Gender set to 1 track will prevent 2 male or 2 female tracks selected back to back. That is fine provided you have roughly 50% male and female tracks, otherwise uneven track selection will occur.

Note: These settings should be used sparingly. One or more high or maximum values may severely reduce the number of tracks available for selection and cause uneven track selection or selection errors. We recommend using *Max Back to Back* set to a minimum of 2, rather than a *Minimum Separation*.

Max Back to Back: This controls how many tracks of the same criteria may be played back to back. For example, no more than 3 male tracks and no more than 2 slow tempo tracks. The maximum value is 4 for all criteria. 0 is disabled. When not disabled, a minimum value of 2 is recommended.

Max Tempo Range: Determines the maximum range in tempo between one track and the next. For example, set to 1, a Medium tempo track can be followed by a Slow-Medium, Medium or Medium-Fast tempo track but not a Slow or Fast track. This can prevent extremes of tempo such as from Fast to Slow. Values are 0 (disabled) to 3. Tracks with no Tempo set will be selected regardless of the Tempo of the previous or next track.

Note: Care should be taken with a value of 1 as this may severely reduce the amount of tracks available for selection.

Max Energy Range: Determines the maximum range in energy between one track and the next. For example, set to 2, a Low energy track can be followed by a Low, Low-Medium or Medium energy track but not a Medium-High or High energy track. This can prevent extremes of energy such as from Low to High. Values are 0 (disabled) to 3. Tracks with no Energy set will be selected regardless of the Energy of the previous or next track.

Note: Care should be taken with a value of 1 as this may severely reduce the amount of tracks available for selection.

Rating Priority (*Pro edition*): This may be used to reduce the number of tracks selected with lower ratings. This works by passing over a track a specific number of times as Creator descends the list of tracks in each category, based on the Rating field in [Track Properties](#).

You may chose to have Rating 1 or 10 for the best tracks. This setting should be set to 0 passes.

eg 1. If you have Rating 3 set to 1 passes, all Rating 3 tracks will be passed (skipped) over once when the track appears in the current shuffled order, and selected the next time through the [Track List](#). ie. An affected track will be selected 50% less often.

eg 2. If you have Rating 6 set to 2 passes, all Rating 6 tracks will be selected once in every 3 passes through the track list, or roughly 33% of the time.

Playlist Format Options

Separate Playlists for each (*Playlist Interval*):

Hour: Create 24 playlist files for each day. Use this option in combination with *StationPlaylist Studio*, [StationPlaylist Scheduler](#), or a playback system where a new playlist file is loaded every hour.

Day: Creates one playlist file for each day of the week. Use this option when the playback system loads a new playlist every day at midnight.

Week: Creates only one playlist file regardless of the number of days generated.

When *Time Checking* is enabled in [Advanced Options](#), changing the interval will prompt the user with the option to set the *Reset Time Check* to the same interval.

Playlist Folder: The disk folder where the playlist file(s) will be created. Files are automatically deleted from this folder. See the [Delete Generated Files](#) option in the *Advanced Options*.

Overwrite existing playlists: When enabled any playlist files that already exist for the hour or day in the *Playlist Folder* will be overwritten by default when generating a playlist. This is the default and recommended setting.

When disabled, playlist files that already exist will not be generated and the *Rotations* will be skipped in the *Schedule*. This may be useful when some hours are manually created in advance, or playlist files for some hours are created elsewhere and copied to the *Playlist Folder*.

UTF-8 Encoding: This option is available when a non-Studio *Playlist Format* is selected (below). When unchecked, playlists will be created with local ANSI encoding.

Filename Format: This format represents the filename of each playlist file. This may need modifying when *Creator* is used to generate playlists for a 3rd party audio playback system. The format supports all standard Windows date and time formatting specifiers. All literal characters enclosed in single or double quotes will be included as is.

The default `mmmdd-hh".M3U"` produces files such as `Jun30-18.M3U`, which is suitable for *StationPlaylist Studio* and the [StationPlaylist Scheduler](#) utility. The extension of `M3U` is compatible with MP3 based audio players but may be changed to whatever your audio playback system requires.

Table 1. Date and Time Formatting Specifiers

The most commonly used date and time formatting specifiers are:

Specifiers	Description
hh	the hour with a leading zero (00-23)
nn	the minute with a leading zero (00-59)
dd	the day as a number with a leading zero (01-31)
ddd	the day as an abbreviation (Sun-Sat)
mm	the month as a number with a leading zero (01-12)
mmm	the month as an abbreviation (Jan-Dec)
yy	the year as a two-digit number (00-99)

The **hh** specifier should be used when creating separate playlists for each hour.

The **dd** specifier should be used when generating playlists for more than 7 days.

Table 2. Playlist Parameters

The *Playlist Parameters* are required for the *Playlist Format* setting below. The *Header* and *Footer* settings can also utilize some of the parameters. Only the `%D` and `%h` parameters will include any useful information for *Headers* and *Footers*. These settings provide the ability to create playlists in the structure or format required for basically any automation or playback software.

The format is `%nx`, where

n = optional string size. This will pad with spaces the parameter value to the specified number of characters. If the value contains more than this number of characters, it will be truncated.

x = case sensitive parameters as follows:

Param	Description
u	Unmodified full path\filename (with no File Path Substitutions)
p	File path (excluding trailing \)
F	Filename (with extension)
f	Filename (no extension)
e	File extension (including the period ".ext")
a	Artist
t	Title
N	Client
S	Song duration in seconds
s	Song duration (mm:ss)
d	Playlist duration (hh:mm:ss)
D (<i>format</i>)	The scheduled date in the selected format. The (<i>format</i>) is optional and may contain any of the standard Windows date/time formatting specifiers. See <i>Table 1</i> above for commonly used specifiers. If the format (including the brackets) is omitted, the format used is the Windows ShortDateFormat based on the Windows regional settings. eg. %D(yy-mm-dd)
h	The scheduled time to play (hh:mm:ss). The hour will be constant for all tracks in the same hour, and the Minute value can go past 60. eg. 01:61:30. If the Minute is more than 99 minutes, a normal time is output.
E	Timed event type (0-3). 0 = Non-timed, 1 = Play Next, 2 = Instant, 3 = Fixed
H	Timed event hour (0-23)
M	Timed event minute (0-60). 60 = end-of-hour event
q	Cue point in milliseconds
o	Crossfade overlap duration in milliseconds
Q	Segue point in milliseconds from the beginning of the track
P	Fade Speed (not currently utilized). This is an indication of how fast the track naturally fades out at the end of the track. A smaller number indicates a faster fade.
Y	Internal use. Value 0.
z	0 = Studio will calculate the Cue & Segue points, 1 = Studio will use the %q and %Q values above for the Cue & Segue points
i	Track intro time in milliseconds, eg. 10500. This may be read from the file tag or filename
T	Track intro time in seconds with 1 decimal place, eg. 10.5.
I	Track outro position in milliseconds from the beginning of the track.
C	Track Type (see table below)
c	The <i>Category</i> or <i>Spot Group</i> name
L	Track number. This is reset to 1 at the <i>Reset Period</i> (see Advanced Options)
O	<i>Other</i> field in Track Properties
r	Color as a 32-bit decimal number, otherwise -1 for the default color based on the Track Type.
n	Insert a new line (cr/lf)
b	Tab character

Any other characters in the string will be included as is.

Examples:

%u (equivalent to **%p\%f%e**) will generate the default M3U standard playlist format containing the full path and filename. This is compatible with most free media players.

(%d) %20a%20t [%s] will generate this:

(16:30:00) The Beatles Let It Be [04:02]

Table 3. Track Types (Parameter code **%C** above)

Type	Description
0	Category (song)
1	General Spot
2	Jingle (special meaning in Studio)
3	Break note
5	Empty playlist marker. This represents a ...NONE... virtual rotation.
6	Voice track marker
7	Song intro
8	Song outro
9	Voice track
10	Commercial intro
11	Commercial

Playlist Header: The text to be inserted at the start of every playlist file. This may be required for XML or similar formats. *Table 2* parameters may be used.

Hour Header: The text to be inserted at the start of every hour in the playlist file. This may be required by software which needs to identify the start of each hour. *Table 2* parameters may be used.

Playlist Format: This is used to define the structure of the tracks output to the playlist file. Select a playlist format from the pre-defined pull-down list or enter a user-defined template using the parameters in *Table 2* above.

When a pull-down selection is made, several other settings are modified to suit the selected playback software.

Pre-defined List

StationPlaylist Scheduler: Select this format when using the Winamp media player with the [Scheduler](#) utility.

M3U Standard: This is the standard M3U playlist format which most media players support.

Other pre-defined systems supported are:

StationPlaylist Studio, PLS Standard, AudioEnhance DPS, Raduga, and Windows Media Server (WSX).

Hour Footer: The text to appear at the end of every hour in the playlist file. This may be required for XML or similar formats. *Table 2* parameters may be used.

Playlist Footer: The text to appear at the end of every playlist file. This may be required for XML or similar formats. *Table 2* parameters may be used.

Break Note Format:

Break Notes are text or codes which may be inserted in a playlist to control the playback system or simply as a note for the station DJ/announcer. *Break Notes* are only of use if the playback system is able to handle non-audio instructions.

StationPlaylist Studio is able to utilize [Break Note codes](#) to control options, turn on the line-in mixer of the soundcard for external feeds for a specific duration, etc, or the text of an advertisement to read live. See the *Break Note Code* section of the *Operation* chapter in *StationPlaylist Studio's* help documentation for more details. Other playback systems can also utilize break notes with their own specific codes.

Break Notes may be added to a [Rotation](#) in [Rotation Properties](#) or entered in the [Timed Events](#) section in [Schedule Properties](#). The *Break Note Format* may include any literal characters in combination with any playlist parameters in *Table 2* above. %u is normally required and is replaced with the *Break Note* description entered in *Rotation Properties/Schedule Properties*. *Break Notes* cannot be created when the *Break Note Format* is empty.

Playlist File Path Substitutions:

Substitute the first occurrence of the *From* path with the *To* path in all the audio filenames within the playlist (case insensitive). This option may be required when *Creator* is run on a different PC to the broadcast PC, or if the playlist is to be published on the web as a static on demand playlist. This enables a playlist created on one computer to be opened and played on another computer without requiring identical drive letters or folder structures.

If the *From* path ends with a backslash "\", the *To* path should also.

If the *To* path is empty, the *From* path is removed from all filenames.

An empty *From* path represents all paths in the playlist. In this case, all paths in all filenames will be replaced with the *To* path.

To completely strip all paths from the filenames, leave the *From* path empty, and place a period "." in the *To* path.

Examples:

From: F: To: C:\My Documents\My Music

From: F:\ To: D:\

From: C:\Music\ To: http://www.mywebserver.com/music/ (on demand webcast)

File Extensions:

The list contains all the file extensions supported by *Creator*. (See the [supported files](#)). Only the highlighted extensions will be considered by *Creator* when scanning folders or selecting individual files for *Categories* and *Spot Groups*.

Toggle an extension on or off by clicking with the mouse or pressing the space bar.

Use the *Select All* button to quickly select all extensions, or *Select None* to disable all extensions.

Advanced Options

Reset Time:

Resets the playlist "carried over running time" at the start of each *Hour*, *Day* or *Week*.

This option has most effect when *Time Checking* (below) is enabled, however, it will also synchronize the playlist running time parameter %d in the [playlist format](#), plus the %N *playlist format* parameter is reset to 1, at the start of each time interval, regardless of the *Time Checking* option.

When *Time Checking* is enabled, and the *Reset Time is set to Day* or *Week*, it is used to control the balancing of playlists over several hours by keeping a running time of the selected tracks, and comparing this to the actual scheduled time at the top of each hour. For example, if a long track is selected near the end of an hour and this hour ends up say 65 minutes, then the next hour only needs to schedule 55 minutes worth of tracks. We call this the **carried over running time**. This example is disregarding the *Crossfade Allowance* below which adds more time to each hour due to crossfading between tracks.

With the *Hour* setting, the running time is not carried over to the next hour. The running time is reset at the top of each hour. This is required for playback software which synchronizes the playlist every hour to ensure it is running on time. Most broadcast automation systems would require the *Hour* setting.

With the *Day* setting, the running time is carried over from hour to hour but is reset after 24 hours.

With the *Week* setting, the running time is carried over throughout all hours for a whole week.

With the *Day* and *Week* settings, the *Crossfade Allowance* below will need fine tuning to keep the playlist running roughly on time, plus or minus a few minutes, in a playback system where no [Hour Header](#) can be used for synchronizing the playlist with the current time.

The *Reset Time* and the [Playlist Interval](#) in the *Playlist Options* often have the same setting, but there are times when they should be different. For example, an automation player may require one playlist file per day, but the playlist contains [Hour Headers](#) to define each hour, and the playback system synchronizes the *Hour Header* with the PC clock. In this case the [Playlist Interval](#) must be *Day* and the *Reset Time* should be *Hour*.

StationPlaylist Studio and the *StationPlaylist Scheduler* utility both require separate playlist files for each hour ([Playlist Interval](#) = *Hour*), and generally the *Reset Time* should also be set to *Hour*. However, there is a scenario for *Studio* where there can be a benefit setting the *Reset Time* to *Day* or *Week*. When the *Hour Markers* option is set to *Play Next* in *Studio*, and when lengthy tracks are sometimes scheduled which span two separate hours or more, a daily or weekly *Reset Time* interval will prevent tracks from being scheduled for the hours where no tracks are required, or reduce the number of tracks scheduled for an hour if a long track is due to finish part way through the next hour. This has the benefit of not selecting tracks that will not be played. Scheduled tracks may not be available for selection again for some time regardless of whether they are actually played or not.

Time Checking:

Enable Time Checking (default checked)

When checked, *Creator* will keep a track of the play time of the selected tracks for each hour, and category items (eg. songs) will be added to or removed from each hour to ensure at least 60 minutes of play time will be scheduled for every hour.

Category items are added to the playlist when it is short of 60 minutes by rotating back to the top of the current [Rotation](#) and selecting additional tracks from *Normal Priority* [Category](#) items only. High Priority categories and [Spot Groups](#) are not utilized when topping up the hour.

Tracks are dropped from the playlist by skipping the last few items in the *Rotation*. *Timed Events* are never dropped. The total items added and dropped are displayed in the *Playlist Creation* window and saved to the *Generate.log* file.

Individual [rotations](#) may have *Time Checking* disabled when some rotations need to be shorter or longer than 60 minutes.

Playlist to be within:

This option is only available when creating a separate playlist for every *Day* or *Week*, for automation software other than *StationPlaylist Studio*.

This is the period of time (plus or minus) that the play time must be within every hour.

Items will be added or dropped when the play time falls outside this period.

For *Daily & Weekly* playlists, some hours will be shorter and others longer but generally a playlist will average out over a period of time to stay roughly on time, so it is not recommended to use a very low setting. A setting of less than 3 or 4 minutes will have little effect and will lead to excessive adding and dropping.

Over Schedule (seconds/hour): This option and the one below are only available when the *Reset Time* option above is set to *Hour*.

With a value entered, *Creator* will continue scheduling tracks until the accumulated duration of every hour exceeds 60 minutes plus this number of seconds.

This is useful to prevent under-scheduling enough tracks when using *StationPlaylist Studio* with *Play Next* hour markers, and a *Non-Instant Hour Offset*.

For example, if Studio's *Non-Instant Hour Offset* is set to -60 seconds, the *Over-Schedule seconds/hour* should be set to 60 seconds. This should work better than over-scheduling an extra track per hour (below) as it will prevent extra tracks being scheduled that are not played.

Note: This option should generally be 0 when *Last Track Bias* is enabled below, however, with a positive *Last Track Bias* setting, there may be a situation where the same positive value entered into both options could be useful.

Over Schedule (tracks/hour): This option is not available when *Over Schedule (seconds/hour)* above contains a value.

With a value entered, Creator will schedule 60 minutes of tracks plus this number of additional tracks at the end of every hour.

If only some hours need to be over-scheduled, a special break note code may be used instead to over schedule one track in any hour the break note is used. This provides for selective over-scheduling in hours that are more prone to track shortages, such as variable length news feeds.

Simply insert the words extra track into a [break note](#) description. Insert the break note twice to schedule 2 additional tracks in the hour after the 60 minute mark.

Crossfade Allowance: This option is only available when the *Reset Time* option above is set to *Day* or *Week*.

The *Crossfade Allowance* is the estimate of the average amount of crossfading time occurring per track in the playback system, and is used by *Creator* to determine the number of tracks to schedule in each hour.

Most playback systems use crossfading between the outgoing and incoming tracks. The exact crossfading point of each track may not be known by *Creator*, unless a [Segue time](#) has been established.

This value will usually need tuning depending on the format of the station. If the playback system has no crossfading ability, then the *Crossfade Allowance* should be set to zero.

With a higher *Crossfade Allowance*, *Creator* assumes that more of each song is being truncated so additional tracks may be added to the playlist to compensate.

Alter this setting in small increments if the playlist is losing or gaining too much time over a long period of time. Decimal points are allowed. Typical values are between 9 and 13 seconds per track for most music types.

Note that this option does not control the amount of crossfading performed by the player software. It is strictly used to control the number of tracks scheduled every hour and to prevent time drift during large playlists which do not contain [Hour Headers](#).

Timed Event Compensation:

When enabled, *Creator* will automatically schedule one additional category track for every unique time of all "Instant" timed events scheduled in the hour. An Instant timed event truncates the current song playing so the playlist is likely to end up short of 60 minutes playing time. This option will prevent this situation.

Timed Events set to "Play Next" do not truncate tracks playing and extra tracks will not be scheduled for these events.

Last Track Bias: *Last Track Bias* will attempt to select the last song in every hour to fit as close as possible with the remaining time. This is particularly useful when the automation software (eg. *StationPlaylist Studio*) is set to start each hours playlist instantly at the top of hour. This option is also useful in combination with Studio's *Auto Speed* feature which can slightly speed up/slow down the hours playback to ensure a track finishes precisely at the top of the hour.

Provided there are plenty of songs to choose from in the last used category, most hours can end within a few

seconds from the top of the hour.

Note 1: This feature can considerably slow down playlist creation when using very large categories.

Note 2: This feature will not work as expected when *Instant Timed Events* are scheduled within the hour, ie, events scheduled for minute 1 through minute 59. The feature will work correctly for *Instant Timed Events* scheduled for Minute 0 (top of hour) and Minute 60 (end of hour).

All tracks will need to have a [Segue time](#) calculated so Creator knows exactly how long each track will play. Studio does this when a track is played for the first time. Tracks may be pre-scanned in bulk using the [Track Tool](#) / [File Scan](#) feature.

Positive bias values from 0 will attempt to select a song which takes the time past the top of the hour by the selected number of seconds.

A Bias of between -1 and -99 will enable the selected song to under-schedule the hour by no more than the selected number of seconds. Negative values such as -30 seconds, will result in hours being closer to 60 minutes as there will be more tracks available to select from, but this should only be used when end-of-hour timed spots are scheduled, or the automation software can vary the speed of playback to ensure the hour is filled, such as *StationPlaylist Studio's Auto Speed* feature.

[No Category] Scan Folder: When a folder is entered, Creator will scan this folder and all subfolders at start-up and load any tracks that are not in any categories into the [No Category] [Track List](#). These tracks may then be manually allocated to categories.

Copy Scheduled Tracks:

This option is mainly designed for internet radio stations using an on-demand/file upload account at a file hosting company. Creator will copy all the tracks selected in the playlist to one specified folder for easy uploading. A [File Path Substitution](#) will be required to remove or replace the file paths within the playlist.

Delete Generated Files:

Files in the *Log Folder*, *Playlist Folder*, *HTML Playlist Folder*, and *Voice Track Folder* which are over the selected age (based on the files modified date) will be deleted at the start of each new playlist creation or [music log import](#).

Set to 0 to disable all file deletion, but note that hundreds or even thousands of files could build up in these folders over many months, which could slow down the computer.

Warning: The deletion routine will delete all files in these folders, not just the files generated by *Creator*. Do not place any files you wish to keep in any of these folders. Any read-only files, however, will not be deleted.

Use file tags for Artist and Title: When enabled, artist and title information for all tracks may be obtained from within file tags inside each file if available. When disabled, or if no supported file tag exists, the artist and title is obtained from the filename if possible. See [Song Database](#) for more information. This option should be disabled if the tags in your audio files are not reliable enough to be used for Artist and Title recognition. However, the *Store data in file tags* option below can still be enabled to store additional information.

Store data in file tags: Creator will store the scheduled history of the track inside each audio file. That is the last 18 dates/times each track was selected for a playlist. This information is used by the [Separation Rules](#), and displayed in [Track Properties](#).

This option is recommended to remain enabled. When disabled, the scheduled history is only stored in the category or spot group data file, but this information is lost if a file is moved out of a *Category* or *Spot Group*, or the *Category* or *Spot Group* is deleted. When file tags are enabled, this information is never lost.

Note: Automatic tag updates will not occur on read-only audio files, and no error will be generated.

Scan Folders at Startup: When enabled (highly recommended), all folders specified in *Categories* and *Spot Groups* will be scanned for new or removed audio files when Creator is loaded.

Files with a newer Windows modified date/time than previously recorded will also be checked for modifications, such as changes to the artist, title, cue, or segue information made in other utilities such as the [Track Tool](#), [Track Properties](#), or *StationPlaylist Studio*.

This option may be disabled to speed up the loading process, but changes made to the folders or files will not take effect when generating a playlist. In this case, a manual [Rescan All Folders](#) should be executed from the *File Menu* when changes have been made.

It is possible to temporarily disable scanning folders by holding the down the Ctrl and Alt keys while *Creator* is loading.

This option has no effect on the *[No Category] Scan Folder* feature above.

Filenames contain: This setting is utilized when the **Use file tags for Artist and Title** above is disabled, or when a track does not contain a supported file tag. The Filename will then be used to obtain the artist and/or title.

Artist first should be selected when all audio filenames contain the *Artist* followed by the *Title*. **Title first** should be selected when the *Title* appears before the *Artist*. A mixture of both formats is not supported. When this option is changed, all files will be re-loaded.

Artist Delimiter: The characters in the audio filenames that divide the artist and the song title. The default of " - " (space, hyphen, space) supports the popular format 'Artist - Title.ext'. This setting is utilized when the **Use file tags for Artist and Title** above is disabled, and when a track does not contain a supported file tag.

Recycle Category Tracks: If checked, will store the tracks selected from specific categories during one period of the day, and recycle them in a later period of the day, within the same playlist creation period. For example, tracks in a category selected between midnight and 6am can be re-selected in a different order between noon and 6pm. The tracks in the categories will rotate slower, giving the impression of a larger library.

Recycling needs to be enabled for individual categories in [Category Properties](#).

The Hours From range needs to be before the Recycle To period within the same playlist creation. It is possible to take tracks in an evening period and recycle in a morning period but only if the playlist contains the evening period earlier and the morning period later in the same playlist creation. eg. The playlist is created from 12 noon to 11:59am or later the next day.

If playlists are generated from midnight to midnight (recommended), tracks from 06:00 to 11:59am, for example, can only be recycled in a 6 hour period somewhere between 12:00 noon and 23:59.

An hour range passing midnight is supported, eg 23:00 to 05:59, but obviously not when the playlist period is from midnight to midnight.

We recommend making the Hour From range 1 hour larger than the Recycle To range to provide more than enough tracks to select from.

If a recycled track cannot be selected due to separation rules, this will be reported in the *Creation dialog* and stored in the *Generate.log*, and a track from the entire category will be selected.

While selecting from recycled tracks, [Daypart](#) and [Hourpart Song Separation](#) compares the 2nd to last selection of the same song, not the last selection.

New Track Bias: This affects the track selection process by biasing selection on category tracks that have been added to the library more recently. This is done by scanning down a few tracks from the current category list position and choosing the track with the newest Creation Date. When set to *None*, all tracks are made available for selection. The heavier the bias, the more tracks it samples to find a newer date, and the less chance of selecting older tracks. However, even on the *Heavy* setting, the oldest tracks will still occasionally be selected.

This option may be enabled/disabled per [category](#).

Note: We recommend leaving this at *None* for an even selection of tracks. Any other setting will cause several functions to be disabled which attempt to select every track the same number of times over a period. Some tracks will be selected many times and other tracks may not be selected for several weeks.

Change Creation Password (*Creator Pro*): A password entered here will be required when attempting to create a playlist. This may be useful to stop accidental or unauthorized creation of playlists. The password is case sensitive.

Change Master Password (*Creator Pro*): Creator can be locked from all user access. This may be useful to prevent unauthorized access to the software. The password is case sensitive.

When a password has been established, the password will be required when loading *Creator*. The [Lock Creator](#) option on the *Tools Menu* may also be used to lock access while *Creator* is loaded.

The *Auto Playlist Creation* facility in StationPlaylist Studio and StationPlaylist Scheduler will operate without a password being entered.

Change Editor Password (*Creator Pro*): Loading the *Playlist Editor* from the shortcut on the StationPlaylist Start menu, or from *StationPlaylist Studio*, may be protected with this password. The password is case sensitive.

This password is not utilized when loading the editor from within *Creator*.

HTML / Voice Tracking Options

HTML Playlist:

Enable HTML Playlist:

When checked, a set of personalized HTML/JavaScript web pages will be created for your website or intranet, in addition to the playlist files used for broadcasting. Your station staff/DJ's and/or your listeners will be able to browse the track titles for any hour of the generated playlist.

Publishing future playlists publicly is illegal in some countries. This facility is often used for private publishing for internal use, or for remote DJ's recording voice tracks, for example.

24 files will be generated for each day. They are roughly 3kb in size which totals roughly 500kb for a weekly generation. The files are stored in the *HTML Playlist Folder* specified below, but may be copied elsewhere or manually uploaded to a remote server if required.

The file **playlist.html** should be used for linking from your web pages. This file contains JavaScript code to automatically load the HTML Playlist file for the current hour based on the viewers computer clock.

Include All Playlist Details (*Creator Pro*): When enabled, *Spots*, [Voice Track Markers](#) and song [intro times](#) will be included in the HTML Playlist. This may be useful for DJ's recording their voice tracks from a remote location.

Include Spots: Include *Spots* in the HTML Playlist. When this is unchecked, only *Category* tracks are included. When a duration is entered in the *Over* box, only *Spots* that exceed this duration will be included. *Spots* are always displayed in red.

Include Scheduled Start Time: When enabled, the scheduled start time of each track will appear to the left of the track title in the HTML Playlist.

Output Category Names only: When enabled, only the names of the *Categories* and *Spot Groups* will be output in the HTML Playlist, rather than the titles of the selected audio files.

HTML Playlist Folder: The disk folder where the HTML Playlist files will be created. With the exception of *index.html* and *playlist.html*, other files are automatically deleted from this folder. See the [Delete Generated Files](#)

option in the *Advanced Options*.

HTML Code:

The look of the generated web pages may be altered to suit an existing website by altering the *Header* and *Footer* code. A good knowledge of HTML may be required.

The **Default** button will generate the default HTML code for the *Header*, *Footer* and *Title* by asking for the station name and website URL.

The **Header** button will pop up a window for entering/editing the header code. This is used to customize the top of the generated web pages. There are some requirements as follows:

The header code **must** contain the `<body>` tag along with the *text*, *alink*, and *vlink* color definitions. The *link* color is optional. The *text* color is used for the track titles. The *vlink* color is used for the track duration beside the titles. The *alink* color is used for the "Scheduled for " date/time. The color definitions must be unbroken (no new lines) between the tag name and the last quote ("). eg. *alink*="blue".

The **Footer** button will pop up a window for entering/editing the footer code. This is used to customize the bottom of the generated web pages -- after the playlist details but before the "Generated by" message. The `</body>` and `</html>` tags should **not** be included as these are generated automatically.

The **Title** is the title that will appear at the top of the browser window. It is also used in the heading of the log files & reports.

Generate VT Filenames: When checked, each scheduled [Voice Track Marker](#) will be replaced with a unique filename based on the *VT Filename Format* below, when generating a playlist. The file itself does not yet exist. This is normally used for remote voice tracking where voice tracks are sent in from elsewhere. This option is usually disabled when using the [Playlist Editor](#) for [Voice Tracking](#).

VT Filename Format: The structure of the voice track filenames generated by *Creator*. The standard Windows [date/time formatting specifiers](#) may be used. (See the [Playlist Filename Format](#) specifiers). This format should always contain at least **dd** (day), **hh** (hour), and **nn** specifiers. **nn** is replaced with a 2 digit number representing the number of voice tracks scheduled in the hour, starting at 01 for the first VT.

The default format is **mmmdd-hhnn".WAV"**

The quotation marks around the file extension are required, and also around any non-date/time parameters.

Generally, only the extension should need modifying. If *Generate VT Filenames* is enabled, and voice tracking is done remotely, then the file extension may be changed to any [audio file format](#) supported by *Creator*. When voice track recording is done locally in the *Playlist Editor*, only WAV, OGG, and MP3 extensions are supported.

A special parameter **%u** is supported. eg. **mmmdd-hhnn"-%u".mp3"**
Quotation marks are required around the %u as in this example.

With *Generate VT Filenames* enabled, %u is replaced with a [VT Marker Description](#) if one is supplied in the *Rotation Properties*. When disabled, %u will be replaced with the user name of any users operating [Remote Voice Tracker](#).

Voice Track Folder (*Creator Pro*): The location where the voice track files will be generated. Files are automatically deleted from this folder. See the [Delete Generated Files](#) option in the *Advanced Options*.

Voice Track Recording Application (*Creator Pro*): The executable program which will load when recording voice tracks via the [Playlist Editor](#).

VT Recorder: [VT Recorder](#) is designed for recording voice tracks with the option of listening to the outgoing and

incoming songs while recording.

SPL Recorder: Our generic audio recorder [SPL Recorder](#). Only automatic [VT/Song Intro overlapping](#) in *Studio* is possible using this recorder.

3rd Party: Audio editors may be used. The application must support the loading and saving of at least WAV files via the command-line. Some applications have difficulty loading the empty WAV files created by the *Playlist Editor*. Only automatic [VT/Song Intro overlapping](#) in *Studio* is possible using 3rd party recorders.

Visual audio editors tested for compatibility include Cool Edit, [Adobe Audition](#), and [Sound Forge](#). These 3 applications support WAV, MP3, and OGG files either natively or with additional plugins.

3rd Party App: Select the executable file of the audio editor.

Sample Rate: This option is available when selecting 3rd Party. A sample rate of 44100 or 48000 is available. Only select 48000 if the mixer or recording device does not support 44100.

When using *VT Recorder* or *SPL Recorder*, the Sample Rate may be selected in the recorder options.

Check for Remote VT Users: The option is only available when *Remote VT Server* 6.10 or later is installed. When enabled (default), loading the [Playlist Editor](#) will check if any Remote VT users are currently connected. This is important as edits can be lost if the same hours are being edited by 2 computers around the same time. What happens depends on the next option...

Local Warning Only: When enabled (default), the Playlist Editor will be warned but editing will still be possible. Remote VT users will be able to login when the *Playlist Editor* is loaded. When disabled, the Playlist Editor will not allow editing until all Remote VT users have logged out. Remote VT Users will be unable to login while the *Playlist Editor* is loaded.

Intro/Outro Tool

This tool may be used to quickly record intros and/or outros for all songs or artists in a category, and also list songs that don't have any intros or outros.

Note: The record function is only available in the *Pro* edition of *Creator*.

For the remainder of this chapter, all references to "intros" refers to both song introductions before a song and outros after a song.

Creator supports automatically scheduling a song or artist introduction to be included in the playlist prior to a song selected from a *Category*. Song Introductions can overlap the end of the last song and start of the associated song to produce the atmosphere of a live broadcast when fully automated.

Introductions are pre-recorded for preferably all songs or artists in the library, or at least all songs or artists in one particular *Category*. This can take some time, however once this is done, an unattended station can sound similar to a live show hosted by a DJ. With this in mind, we suggest Intro's often include some brief information about the song, along with a station identification. For example,
"Here's Bering Strait, a band from Russia, with Jagged Edge Of A Broken Heart, on WKRP, Cincinnati's best Rock music".

This system is different to [Voice Tracking](#) where announcements are regularly recorded in the playlist.

If recording an introduction for every song sounds like too much work, an introduction can be recorded for each artist instead. An example Artist introduction is: *"Here's Bering Strait, a band from Russia, on WKRP, Cincinnati's best Rock music"*.

Note: Before using this tool, a "Song Intro" or "Song Outro" type *Spot Group* must be created first in [Spot](#)

[Properties](#) with an existing folder specified in the File(s) or Folder(s) list.

See [Spot Properties](#) for information on how to schedule an intro or outro inside your *Rotations*.

General Operation:

Select a *Category* and an intro or outro type *Spot Group* from the pull down list options.

The *Missing Intros/Outros* list will show the songs in the *Category* which do not have a matching introduction file in the *Spot Group*.

Additional information about any track may be displayed by hovering the mouse over the track icon to the left of the artist. The information displayed, if available in the file tags, is the Year, Album, Composer, Conductor, Comments, Hook times, Track Ending, and the last 18 times the track was scheduled and played. This information may be viewed or entered in the [Track Properties](#) dialog.

With the *Match* option set to *Songs or Artists*, the list shows songs that do not have a matching song or artist intro file.

The *Print* button may be used to print to paper the list of the missing intros/outros.

Record:

To record an intro, the *Match* option must be set to "Songs only" or "Artists only".

The [Voice Track Recording Application](#) on the *HTML / VT* options page is used to record the intros. When using the [VT Recorder](#), "Manual Incoming Only" may be selected for Song Intros, and "Manual Outgoing Only" may be selected for Song Outros to set a specific start position for the voice track. With "Automatic" overlap selected, all songs will need [Intro Times](#) set in the *Track Tool* to have the song introduction overlap the song to sound live.

Select a song title and click *Record*. An empty audio file is created in the spot folder with the file extension and format determined from the [VT Filename Format](#) on the *HTML / VT* options page.

The empty file is loaded into the recording application, ready to press the Record button. Once recorded, save the file and exit the recording application, before selecting another song.

Track Tool

This utility may only be of use when using *StationPlaylist Studio* automation software. It's main purpose is to set intro and outro times of individual songs by listening to each track and clicking a button or key at the correct position. The tool may be used to set manual cue and segue positions, or by scanning the files to calculate cue and segue positions automatically. It may also be used to view track information in various columns. This information may be changed using [Track Properties](#).

Much of the *Track Properties* data is displayed in separate columns. Columns may be moved using drag & drop, and the column widths may be adjusted by dragging the column dividers. Click a column header to sort the tracks by that column. Click again to sort in reverse order. Columns cannot be added or removed. To not see a column, reduce the size so it is not visible or move it to the right.

The *Track Tool* may be loaded from *Creator, Studio*, the Windows Start menu / *StationPlaylist* folder, and the Windows File Explorer right-click context menu.

Files and entire folders may inserted into the file list using the *Open* (files) and *Browse* (folders) buttons, or drag and drop from Windows File Explorer into the track list. The total duration of all or selected tracks is displayed in the status bar.

Important: When loading the *Track Tool* from outside of *Creator*, and *Creator* is currently loaded, a [Rescan All Folders](#) should be performed in *Creator* before a playlist is created, to read all changes into the Category database.

Note: When loading the *Track Tool* from *Creator* or *Studio*, the player controls will be disabled when the [Track Preview](#) player is disabled.

[Keyboard shortcuts](#) are listed near the bottom of this page.

[Command-line parameters](#) are available for the [File Scan](#) and [Gain Scan](#) features, and to set track properties, at the bottom of this page.

Intro Duration:

This setting may only be useful when using the Pro edition of *StationPlaylist Studio*.

The *Intro* time is usually the instrumental / non-vocal beginning of a song (song ramp), or the position in the song where the vocals start. These are useful for DJ's to see where they can talk up to at the start of a song while doing a live show.

Intro times are required for automatic VT/Song overlapping in *Studio*. These are generic [Voice Intro](#) or [Song Intro](#) spots, or [Voice Tracks](#) recorded outside of *VT Recorder*, or with [VT Recorder](#) set to *Automatic VT Overlap*. When these voice tracks are used, intro times should be established for every song in the library so they can automatically overlap the next song to emulate a live DJ.

A blank *Intro* time means that the track has not been intro timed, whereas a value of zero means the track has been intro timed and the vocals start immediately. Use the *Clear* button to remove the *Intro Time*.

This procedure may take several days to work through several thousand songs and may appear a daunting task, but working with one folder at a time over several days or weeks will get the job done and can be very worthwhile.

The *Intro* times of songs appear beside tracks in the [Track List](#), [Playlist Editor](#), and *StationPlaylist Studio*.

An *Intro* time is normally set for songs, however, a [song intro](#), [outro](#), or [voice track](#) may also have an *Intro* time set. In this case, the value entered controls the song ramp overlapping that will occur in *StationPlaylist Studio Pro* and song intro times will be ignored. See the *Song Intro Time Override* and *Intro Timing* options in Studio's documentation for more information.

Negative *Intro* times are only for use with voice tracks. Songs should only have positive values.

[Song Outros](#) will overlap the end of songs in *StationPlaylist Studio Pro*, but by default, they will not overlap the song ramp of the following song. However, if an *Intro Time* is specified for an Outro track, *Studio* will treat the track just like a voice track / song intro, which can then overlap the following song ramp. In this case, a negative *Intro Time* is recommended as this will overlap the end of the previous song associated with the Outro, as well as overlap the start of the next song if a song ramp has been established. See the *Intro Timing* option in Studio's documentation for more information.

Outro Position:

This may only be useful in the *Pro* edition of *Studio*, which will utilize this value when an automated voice track/voice intro/voice outro is scheduled after a song. This is not required when recording voice tracks in [VT Recorder](#).

An Outro sets the earliest possible time a voice track can start at the end of the song. The actual start position will be calculated by Studio depending on the length of the voice track and *Intro Duration* of the following song. As with song/intro overlapping, the song volume will be reduced while the voice track plays over the end of the song.

An *Outro Time* is normally set for songs, however, a song intro, song outro or voice track may also have an *Outro Time* set. This will take precedence over any Outro time specified on the previous song. Care should be taken to ensure the voice track cannot overlap vocals at the end of the previous track.

Note 1: The *Outro* time on a voice track is set as the number of seconds before the end of the song. However, an *Outro Time* set in a song is the duration at that position, similar to a *Segue* time.

Note 2: The *Outro* time on a voice track will be ignored if it is scheduled as a timed event.

Cue, Overlap and Segue Positions:

These positions are used to manually establish when a track will start and finish in *StationPlaylist Studio*, and the extent of the crossfade between each track. *Studio* supports calculating these points automatically based on the volume inside each file. This usually works very well, but in some cases, the positions calculated may not be ideal. In this case, a track can be set to a *Fixed Crossfade*, and manual positions established by listening to the track.

The [File Scan](#) function below can be used to automatically calculate these settings.

Creator also uses this information for determining an accurate accumulative duration for each hour, which determines the number of tracks scheduled.

Cue: The position where *Studio* will start playing the track from. If a track has an *Intro Duration* established, adjusting the Cue will also adjust the length of the *Intro Time* when clicking *Set*.

Overlap: The previous track may overlap up to this position in the track during crossfading. The previous track will fade out during this period. A value of at least 2.5 seconds is recommended for songs to provide a small amount of overlap.

Segue is the position near the end of the track where the crossfade should begin with the next track. This is calculated from the beginning of the track, not from the end of the track as often used by other broadcasting software.

Hooks: Requires *Creator Pro* and/or *Studio Pro*.

This is a method to advertise the type of music the station plays by playing short excerpts of the songs in your library. This can hook listeners in to staying tuned longer. Random hooks may be scheduled in *Creator's* Rotation Properties, and hooks for upcoming songs in the playlist may be played in *Studio* via a break note code.

Hook Position: The position from the beginning of the song where the hook will start, often the start of the chorus.

Hook Duration: The length of time to play from the *Hook Start* position, often between 3 and 6 seconds.

General Operation:

This playback facility should only be used when *Track Tool* is running on a separate PC to that of *Studio*, or when two soundcards are installed, so as to not interfere with the broadcast audio.

Description of general usage:

- One or more audio files are opened and inserted into the *Track Tool*.
- Highlight a track and use the *Play* button to start the track playing.
- Use a *Set* button to save the current playback time into the associated option in the file. This will stop playback if *Stop on Set* is enabled.
- Use the *Test* button to listen to the track at that point to establish if the position is correct. If not, adjust the setting manually using the edit box or *Audio Graph* before trying another *Test*. Finally click a *Set* button below to store the position.

Audio Graph:

Displays a half waveform view of the audio data showing existing positions set in the file with the following colors. Cue: Yellow, Overlap: Orange, Intro: Pink, Outro: Pink, Segue: Yellow, Hook Duration: Olive

Click the audio graph to select a position. This will appear with a dotted line. The *Play* button will start play at the

selected position. Right-click the audio graph to remove the selected position. Click a *Set* button below to store the position.

Positions can be more accurate when *Audio Graph* is enabled because the file is fully decoded to PCM before playback. When disabled, positioning relies on seeking within the audio file, which can be inaccurate for some lossy formats like MP3.

Tool Buttons and right-click menu items:

New: Removes all the tracks from the track list.

Open: Displays the *Open File dialog* to select one or more files from a folder. Press Ctrl+A to select all files within a folder. The selected files will be appended to the track list. Any existing tracks will remain in the list. Files may also be dragged and dropped from Windows File Explorer into the track list.

Browse: Browse for a folder to open. All the audio files in the selected folder will be appended to the track list. Folders may also be dragged and dropped from Windows File Explorer into the track list. Files in sub-folders will also be appended if the option *Include Subfolders* is checked (below).

Properties: Loads the selected track or tracks into the [Track Properties](#) dialog to enter or edit other track information. When multiple tracks are selected, *Track Properties* provides checkboxes to edit the same field or fields of all selected tracks.

File Scan: Opens the [File Scan](#) dialog which is used to automatically calculate Cue, Overlap, and Segue positions of all loaded tracks, based on volume settings. This is what *StationPlaylist Studio* does on the fly when playing a track for the first time, however, it may be useful to set the volume parameters to different settings for different genres or tempos of music, or disable crossfading on certain spots or jingles.

Gain Scan: Opens the [Gain Scan](#) dialog to have all tracks play at the same average volume.

Player: Select a different soundcard to use when playing tracks in the *Track Tool*. This also affects the [Preview Player](#) available in the [Track List](#) and [Playlist Editor](#).

Copy Tags/Paste tags: All the track information from one track may be copied and then pasted to another track.

Select All: Selects all tracks.

Open File Location: This right-click menu item will open Windows File Explorer at the folder containing the selected track.

Paste from Explorer: Paste files or folders copied from Windows File Explorer. Files and folders can also be dragged and dropped.

Delete File: When *Enable File Deletion* is enabled below, this menu item will permanently delete the selected files from the hard drive.

Reset Window Positions: Resets all window and column positions and sizes, and exits the program.

Playback Functions:

Play: Starts playing the selected track from the beginning.

Jump Start: Jumps the currently playing track to the beginning.

Rewind 5: Jumps play back 5 seconds from the current position.

Forward 5: Advances play by 5 seconds from the current position.

Jump End: Jumps the currently playing track to 10 seconds from the end of the track.

Stop: Stop playback.

Options:

Audio Graph: This may be unchecked to hide the audio graph feature described above. Selecting a track to play will be much faster.

Fixed Crossfade: Check this option to enable manual settings of the *Cue*, *Overlap*, and *Segue* positions for the selected file. When unchecked, *StationPlaylist Studio* will automatically calculate these positions as each track is played for the first time.

Fast Segue: When checked, the track will stop playing instantly at the *Segue* position within *StationPlaylist Studio*. This may be useful to play the first part of a news bulletin without hearing the remaining fading out. Leave unchecked for normal use.

Segue to End: When unchecked, clicking *Test* in the *Segue Position* box will start play 10 seconds before and stop at the *Segue* position. When checked, *Test* will start at the *Segue* position and play to the end.

Set on Test: When checked, clicking the *Test* button will also execute a *Set*. This saves the setting in the file every time a *Test* is performed.

Stop on Set: When checked (the default), clicking *Set* will also stop playback.

Enable File Deletion: When checked, individual audio files may be physically and permanently deleted from the hard drive using the right-click menu or Shift+Delete keys.

Include Subfolders: When checked, all files in subfolders will be loaded when using the *Browse* button or drag & dropping a folder into the file list.

File Timings:

Set: Sets the current playback time into the associated edit box and saves the setting into the file.

For example, if setting the *Intro Duration*, click *Set* at the point immediately when the vocal starts.

Use this button to also save manual changes made to the edit box.

Test: Plays the track based on the current setting to test if it is correct. If it is not, use the edit box to adjust the setting and try another *Test*. Ensure *Set* is executed after making a manual adjustment to save the change.

For the *Cue Position*, the *Test* button will start play from the *Cue Position* and play for 10 seconds.

For the *Overlap Duration*, the *Test* button will start play from the *Cue Position* until the *Overlap Duration* is reached.

For the *Intro Duration*, the *Test* button will start play from the *Intro* time and play for 10 seconds. The vocals of the song should start immediately if the *Intro Duration* is correct.

For the *Segue Position*, where the *Test* button plays from is determined by the [Segue to End](#) checkbox option above.

Clear: This changes the *Intro Duration* to an unset status which appears blank. This means the track has not been intro timed. The result is similar to a value of zero, except zero represents a track that where the vocal starts immediately at the start of the song.

Keyboard Shortcuts

Tool Buttons

Ctrl+O = Open files

Alt+Enter = Track Properties
 Ctrl+S = File Scan
 Ctrl+G = Gain Scan
 Ctrl+P = Player configuration
 F1 = Help

Other

Ctrl+E = Open folder containing file
 Alt+1..Alt+9, Alt+0, Alt+-, Alt+= = Sort columns 1 through 12

Player Controls

Enter = Play
 P = Play
 S = Stop
 R = Rewind 5 seconds
 Ctrl+R = Jump Start
 F = Forward 5 seconds
 Ctrl+F = Jump End

Editing Controls

Ctrl + Up Arrow = Up 1 track
 Ctrl + Down Arrow = Down 1 track
 I = Set Intro time
 Ctrl+I = Test Intro time
 Alt+I = Clear Intro time
 T = Set Outro time
 Ctrl+T = Test Outro time
 C = Set Cue time
 Ctrl+C = Test Cue time
 L = Set Overlap duration
 Ctrl+L = Test Overlap
 Q = Set Segue time
 Ctrl+Q = Test Segue time
 H = Set Hook Position
 Ctrl+H = Test Hook Position
 J = Set Hook Duration
 Ctrl+J = Test Hook Duration
 F2 = Copy Tags
 F3 = Paste Tags
 Shift+Delete = When *Enable File Deletion* is enabled, permanently deletes the selected files from the hard drive.

Checkboxes

Alt+D = Enable File Deletion
 Alt+B = Include Subfolders
 Alt+T = Set on Test
 Alt+S = Stop on Set
 Alt+F = Fixed Crossfade

Command-line Parameters

The Track Tool may be loaded with command-line parameters to perform file scanning or to set track properties (file tags). This may be useful for calculating crossfade settings, or setting a fixed segue time for a file after it is downloaded from the internet, such as an hourly news file for example. This may be executed at specific or regular times by the Windows Task Scheduler.

When scanning files, only one of the parameters **/scan**, **/disable**, **/auto**, or **/gain** should be specified. When none of these switches are applied, the files will be loaded for manual editing.

Switch	Description
--------	-------------

/f <filename or <folder>	If a folder is specified, all supported audio files in the folder will be loaded, otherwise the single audio file will be loaded. The filename may be text file with a .inp extension containing the filenames to load. eg. /f D:\test.inp If the file path contains spaces, the filename or folder should be included in double-quotation marks, eg. /f "D:\News Files\Sunday.mp3"
/sub	If a folder is specified above, all files in sub-folders will also be loaded.
/c <cue db>	Set the "Cue at" decibel value. eg. /c -30
/s <segue db>	Set the "Segue at" decibel value.
/o <overlap db>	Set the "Overlap to" decibel value.
/m <min overlap>	Set the "Min Overlap" value in milliseconds. eg. /m 2500
/n <max overlap>	Set the "Max Overlap" value in milliseconds.
/scan	Crossfade File Scan using the Cue, Segue and Overlap settings
/auto	Switch all tracks to Automatic Crossfade.
/disable	Disable crossfading
/gain	Audio Gain Scan using the preset options.
/silent	Doesn't display the File Scan or Gain Scan windows during a scan.
/settag "Name=Value"	Set the specified field <i>Name</i> in Track Properties to the <i>Value</i> . Binary characters can be included via hexadecimal notation \$hh. Some common field names are quoted in the table below.

Examples:

"C:\Program Files (x86)\StationPlaylist\TrackTool.exe" /f "D:\News Files" /s -27 /scan

This will calculate crossfade positions for all files in the "D:\News Files" folder using a *Segue* volume of -27db. The preset *Cue* and *Overlap* settings will be used.

"C:\...\TrackTool.exe" /f "C:\News.mp3" /settag "Title=News" /settag "Segue=120000"

For this one track, the *Title* is set to "News" and the *Segue* time to 120000 milliseconds, or exactly 2 minutes.

"C:\...\TrackTool.exe" /f "C:\File.mp3" /settag "Comment=Hello\$0AThere"

Adds a Comment to the file separated on 2 lines via the line feed binary character.

Common SetTag Names	Description
Artist	Song Artist
Title	Song Title
Album Artist	Album Artist
Album	Album Title
EAN/UPC	CD Code
Client	Client name or ID
Intro	Song ramp time in milliseconds used for overlapping voice tracks in <i>StationPlaylist Studio</i> .
Cue	The position in milliseconds where <i>Studio</i> will start playing the track from.
Segue	The position in milliseconds where <i>Studio</i> will stop playing the track.
FastSegue	1 = enable, 0 = disable. See Fast Segue above. Only use after a <i>Segue</i> has been set.
Language	Shows as "Region" but may be the Country or Language.
RestrictDates	Enter a date range the track can be scheduled or inserted. Format below.

RestrictHours	Enter a hour range on specific days of the week the track can be scheduled or inserted. Format below.
----------------------	---

RestrictDates and **RestrictHours** set options in the [Schedule Restrictions](#) tab of *Track Properties*.

RestrictDates={Start Date/Time}-{Finish Date/Time}, where the date/time format is **yyyymmddThhmmss**. The 'T' and the following time is optional and can be excluded. The Start or Finish times can also be excluded.

eg. /settag "RestrictDates=20241201-". A start date of December 1, and no finish date.

/settag "RestrictDates=-20241231T123000". A finish date of December 31 at 12:30pm, and no start date.

RestrictHours={day#}{first hour}{last hour}, where day# is a number 1=Monday..7=Sunday, 0 = All Days.

The first and last hours are 2 digits in 24 hour format (00-23), or use '99' in the first and last hours to disable the selected day of the week.

Multiple days can have different hours set in the same command separated by a comma.

Setting 2 ranges on the same day is not supported.

eg. /settag "RestrictHours=11217". Enable Hours 12pm through 5pm for Monday and disable all other hours. All other days are left untouched.

/settag "RestrictHours=20611,40611,79999". Enable Hours 6am through 11am for Tuesday and Thursday, and disable all Sunday hours.

File Scan

This dialog is used to automatically calculate Cue, Overlap, and Segue positions of all or selected tracks loaded into the *Track Tool*. This is done by scanning each file and comparing the volume in the file with the DB settings, and storing the results in the SPL file tag of each file.

This is what *StationPlaylist Studio* does on the fly when playing a track for the first time, however, it may be useful to set the volume parameters to different settings for different genres or tempos of music, or disable crossfading on certain spots or jingles.

All tracks scanned will be given a *Fixed Crossfade* status which will prevent *StationPlaylist Studio* from automatically calculating the crossfade settings and overwriting them.

Scanning for volumes can take a few seconds for each track and may take several minutes to scan several thousand tracks. Switching all tracks to automatic. or disabling crossfading, does not require file scanning and this will execute very quickly.

Unchecked the checkboxes of individual settings to prevent this value being calculated. This may be useful if a manual setting has been set on these tracks.

[Command-line parameters](#) are available for the File Scan feature.

Scan:

- All Loaded Tracks: All the tracks loaded into the track list will be scanned.
- Selected Tracks Only: Only the tracks that have been selected (highlighted) in the track list will be scanned.

Switch all tracks to Automatic Crossfade: When checked, removes the *Fixed Crossfade* status when Start is executed. *Studio* will recalculate these positions when it next plays the track.

Include tracks with Fixed Crossfade (already scanned): When checked, all files will be scanned. When unchecked, only files that do not already have *Fixed Crossfade* status will be scanned and modified. This includes tracks that have been set to a *Fixed Crossfade* in the *Track Tool* or [Track Properties](#).

Disable Crossfading: When checked, all files will be set to a *Fixed Crossfade* and all settings set to zero. The tracks will be play from start to end including any silence and without any crossfade overlapping from other tracks.

Fast Scan Method: When checked, seeking is used to jump position near the end of the file to start scanning the audio data to calculate a *Segue* position. This is much faster but can be inaccurate for some lossy audio files, particularly variable bitrate (VBR) MP3 files. When unchecked, the entire file is decoded to PCM to enable 100% accurate calculation of the *Segue* position. This will take much longer to process multiple files.

Cue at: The position where *Studio* will start playing the track from. It is calculated at the position where the volume first exceeds the specified DB value. The default setting is designed to remove all silence and very low volumes at the start of the track. Increase this to -24db, for example, to skip over any low volume audio at the start of the track.

Segue at: The position near the end of the track where the crossfade should begin with the next track. It is calculated at the position where the last peak volume exceeds the specified DB value. The length of the crossfade is specified by the *Overlap* duration.

When using a compressor/limiter sound processor with an automatic gain control (AGC), the *Segue DB* often needs to be much lower depending on the gain of the AGC. A 25db gain may require a *Segue* of around -21db to provide a more natural crossfade.

The actual play time of the track is *Segue - Cue*.

Use Audio Gain: Use the Audio Gain set for each track, set via the [Gain Scan](#) feature or in [Track Properties](#). This option is ignored and effectively enabled for any track with *Force Gain* enabled in Track Properties.

Overlap to: The previous track is allowed to overlap up to this position in the track during crossfading. It is calculated at the position where the volume first exceeds the specified DB value. Songs that start with a low volume will be overlapped longer than those which start at a high volume. Generally this option should be higher (less negative) than the *Segue DB*.

Min Overlap: Specifies the minimum *Overlap* duration allowed. Short overlaps can sound too abrupt, so this option forces the *Overlap* to a minimum value to force a minimum crossfade period. Roughly half the specified duration of overlap is actually noticeable due to fading, so the default of 2.5 seconds may provide only 1 second of noticeable crossfade mixing.

Max Overlap: Specifies the maximum allowed crossfade overlap duration. This will override the *Overlap* setting calculated for a track if it exceeds this value. This will generally only affect tracks that have an extended period of low volume at the start of the track. The default of 8 seconds should provide enough protection to prevent excessive overlap mixing for these low volume tracks.

Set Defaults: Sets all settings to default.

Start (button): Start scanning the tracks.

Gain Scan

This feature in the [Track Tool](#) will calculate the average loudness of all or selected tracks, and set a *ReplayGain* file tag. *StationPlaylist Studio* and several other media players can read this tag and adjust the volume so each track averages the same volume during playback. In Studio this is enabled in the Input options.

Note: Gain Scan uses 3rd party code which is not compatible with Windows XP.

Scanning each track can take a few seconds and may take several minutes to scan several thousand tracks.

For more details, see http://wiki.hydrogenaud.io/index.php?title=ReplayGain_2.0_specification

A [command-line parameter](#) is available for the Gain Scan feature.

Scan:

- **All Loaded Tracks:** All the tracks loaded into the track list will be scanned.
- **Selected Tracks Only:** Only the tracks that have been selected (highlighted) in the track list will be scanned.

Remove Gain: When checked, removes the *ReplayGain* tags from the files when *Start* is executed.

Include tracks with Audio Gain: When checked, files that already have an *Audio Gain* calculated will be scanned again. When unchecked, only files that do not already have an *Audio Gain* calculated will be scanned and modified.

Show Clipping Warnings: When checked, a warning message will appear with an option to cancel the scan, if any tracks cannot be given the selected average loudness because it will cause parts of the track to go above 100% volume. The average loudness will be automatically reduced to prevent clipping, therefore reducing the average loudness for this particular track. In this situation it is better to use a lower average loudness setting for all tracks.

Normalize Loudness to: ReplayGain 2.0, EBU R128 (Europe broadcast standard), or ATSC A/85 (US broadcast standard) may be selected to define what the standard loudness output should be. Use the same setting for all tracks.

A Custom value of 0db will effectively normalize the tracks so the peak volume is at 100%, with no regard to the average loudness.

Start (*button*): Start scanning the tracks.

SPL Recorder

This is a simple non-visual audio recorder which may be used to record audio from the soundcard direct to an audio file on the hard drive. It supports creating files in Ogg Vorbis, MP3, or WAV file formats. Ogg Vorbis is similar to MP3 but provides better sound quality at smaller file sizes.

For *Creator* to use this recorder for [voice track recording](#) or [song intro/outro recording](#), set the [Voice Track Recording Application](#) in the *HTML / VT* options to *SPL Recorder*. The usual application to record voice tracks is [VT Recorder](#).

When loaded from the *Playlist Editor* or *Intro/Outro Tool*, the filename will be set automatically based on the [VT Filename Format](#) option. Ensure this is set to either an ogg, mp3, or wav file extension.

When run independently, the filename will be prompted when the *Record* function is executed. A Save dialog will appear to select the destination folder and filename. As soon as the filename is saved, recording will start immediately.

[Command-line parameters](#) are available below.

Operation

Record (R): Start recording. When run independently, the filename will be prompted for before recording starts.

Stop (S): Stop recording or playback. The *Save* button may be used instead to stop recording.

Save (X): Stop recording (if recording) and finalize the recorded audio file. When used from *Creator*, the program will also terminate.

Play (P): Play the recording.

Clear (Del): Delete the recording.

Configuration (C): Displays the *Configuration* window.

Intro Override (F2): Sets an [Intro Time](#) on the recorded voice track equal to the Elapsed time as a negative value. If the following track is a song and has an *Intro Time* set, the song will attempt to start at the position the key was pressed while recording. Clicking on the *Elapsed Time* counter also executes this function.

Configuration

Sample Rate: A sample rate of 44100 or 48000 may be selected.

Note 1: Only use 48000 if your mixer or soundcard does not support 44100, or most of your music files are sampled at 48000.

Note 2: The DSP plugins Tomass Limiter and Sound Solution only support a 44100 sample rate.

Device: Select the audio input device (soundcard) to record from, often named *Microphone* or *Line-In*.

Mixer (Windows XP only): Select the recording mixer on the input device. This is often *Microphone*, *Line In*, or similar.

Volume: Adjust the volume until the VU meter is just touching the red area very rarely. If the entire red area is fully lit at any stage, clipping of the audio will occur which results in distortion.

This setting may not work with some soundcard drivers. In this case use the *Windows Mixer* (below) to set the recording volume.

Note: Volume adjustments should be done with no DSP selected.

Store Mixer Settings: When checked, the *Mixer* and *Volume* settings above are stored, and the *Device* will be set to these settings next time the recorder is loaded. When unchecked, the current settings will be read from the *Device* when the recorder is loaded.

Channels: Select *Left/Right Mono*, *Left Only Mono*, or *Stereo*. One of the Mono options should be selected for vocal recordings unless you are using dual microphones providing a stereo vocal signal.

Bitrate: When recording an Ogg or MP3 file, the bitrate affects the sound quality and size of the resulting file. For a mono recording, a bitrate of 96kbps for Ogg and 128kbps for MP3 is usually more than adequate for voice tracks.

Digital Signal Processor: A Winamp compatible DSP plugin may be used to process the audio as it is recorded. The included *Tomass Limiter* is a free 3rd party compressor/limiter which will boost low volumes. Other DSP plugins may be copied to the *StationPlaylist\Engine\Plugins* folder.

Remove last 500ms: When checked, will not include the last roughly 500ms of the recorded voice track. This may be useful to remove the noise of the last key press or mouse click while recording.

Scan for silence: When saving the recording, the track will set Cue and Segue positions so *StationPlaylist Studio* will not play any near silence recorded before or after the recorded voice track. The *Silence db* setting determines the volume threshold that is regarded as silence. Increase the setting (less negative) for noisy rooms or mics.

Player Config: Opens the [Track Preview](#) configuration window to select the output sound device.

Windows Mixer: Opens the Windows Recording Devices dialog.

Command-line Parameters

SPL Recorder can be loaded with parameters to automatically start recording.

SPLRecorder.exe {filename} /r[xx]

/r = Start recording.

[xx] = optional length of time in seconds to record. When the time is reached, the program will terminate.

eg. SPLRecorder.exe C:\test.mp3 /r (record until manually stopped)

eg. SPLRecorder.exe C:\test.mp3 /r[120] (record for 120 seconds and terminate)

Create Stream File

This tool is used to schedule an audio stream, RSS feed, or an audio file located on a web or FTP server. This is most likely only useful when using *StationPlaylist Studio* for playback. *Studio* supports playing HTTP(S) streams from Icecast and Shoutcast compatible stream servers, Windows Media streams, and RTP streams, and podcasts.

A .PLS file containing the URL is saved to a folder on a hard drive. This file is then usually scheduled in a [Spot Group](#) just like any audio file.

Multiple stream files for the same stream URL may be created for situations where the stream must be played for different durations.

Edit Existing File: Use this button to edit the details of a previously created stream file.

Stream Name: Enter a title for the stream.

Stream URL: Enter the URL for the stream, RSS feed, or file. This is usually an http, https, rtp, ftp, or ftps address.

eg. https://server.com:8000/listen or <http://123.45.67.89:9000/stream>

For an RSS feed, the latest audio podcast in the feed will be played.

Date/Time parameters are supported in a URL. This is useful if a filename changes based on the current date or time.

When using date/time parameters, all non-date/time parameters need to be enclosed in quotation marks.

eg. "https://server.com/file-"mm-dd".mp3". If it is November 16, this will try to play a file named *file-11-16.mp3*.

For RTP streams, the full syntax is rtp://spl@ip.address:port. The minimum syntax is rtp://:port
spl/@ is optional and will force Studio to only support RTP streams produced by StationPlaylist software. This is recommended for security purposes.

The IP.Address is also optional. If no IP Address/Host name is specified, Studio will accept a stream on the selected port from any source. The *Port* is required.

Create Stream URL: Use the [...] button to the right to load the *Create Stream URL* dialog. This will generate the URL in the correct format. This is particularly useful when a username/password is required as some characters need to be URL encoded.

- **Protocol:** Drop down the list to select the protocol to access the server.
- **Username/Password:** Enter a username and password if the stream or file requires authentication. For RTP streams, the password must be blank, and the username can only be blank or contain 'spl' excluding the quotation marks.
- **Server:** The domain name or IP address of the server. eg. server.com
- **Port:** The port number. Leave blank for the default port for the selected protocol. This is required for RTP streams.

- **Filename:** The path and filename of the file or stream starting with '/'. eg. /folder/file.mp3

Stream Format: Select the format of the stream from the drop down list. This is used to tell *Studio* how to decode the stream.

Note: Some variable bitrate MP3 files on a web server may not play to the end in *Studio* using the MP3 decoder. In this case, our WMA decoder can play these MP3 files on a web server correctly. Select Windows Media as the *Stream Format*.

Check URL: Once the URL and Format has been entered, you may test if the URL is accessible. This test is performed automatically when *Save File* is executed, but you may check it manually. This test does not check if the URL points to audio data.

Duration: The length of time the stream will play. Streams over 1 hour in duration may be truncated depending on settings in *Studio*. For *Web Files* (see below), this duration does not need to be accurate as the duration will be calculated when the file starts playing in *Studio*.

A stream duration of 1 second has a special significance for *StationPlaylist Studio*, which will play the stream for up to 24 hours or until the stream terminates. An Instant [Timed Event](#) may be used to terminate a lengthy stream at a specific time.

Preload: The length of time to preload the stream in *StationPlaylist Studio* before playing. Some streams can take up to 10 seconds to connect and buffer before playing, in which case increase this option to prevent a period of silence. 10 to 12 seconds is recommended for FTP URL's. 1 second is recommended for RTP streams.

URL is a: *Stream* or *Web File/RSS Feed*. Select *Stream* if the URL is a continuous live stream. Normally select *Web File/RSS feed* if the URL is a link to a downloadable file on a Web or FTP server, or a link to an RSS feed.

When *Web File/RSS Feed* is selected, *Studio* will calculate the duration of the file if possible, and use this calculated duration rather than the *Duration* entered above. This is useful if the file changes slightly in duration, and ensures the whole file is played and not truncated.

If only a portion of a file should be played, such as the first 2 minutes of a news feed, select *Stream* to force the track to finish at the entered duration.

Storage Folder: The folder where the stream file will be saved.

Save File: Click this button once all the details have been entered. This will create the PLS stream file which can now be scheduled in a [Spot Group](#), or inserted directly into *Studio*.

Track Properties

Track Properties is used to view, edit, and enter track information.

The *Track Properties* dialog is available from the [Track List](#), [Playlist Editor](#), [Track Tool](#), and *StationPlaylist Studio*, and is used to view, edit, and enter track information.

The information is read and stored in the SPL file tag, not the ID3 or similar foreign tag formats. See [Song Database](#) for more information.

When multiple files are selected, checkboxes will appear beside most fields. All ticked fields will be saved to all selected files. The exception to this is the Restrictions tab where one checkbox controls all restriction settings.

Track Properties is arranged into 5 tabs.

Track Info Tab: Contains the basic song information such as artist, title, composer, album, record label, etc. All

information is optional, although the artist and title is usually the minimum required for song identification purposes. Other information may be required for song royalty reporting purposes.

Most of this information is available for viewing in *StationPlaylist Studio* by moving the mouse over the track icon. This may be useful information for DJ's to use while on-air.

Most of the fields are obvious except perhaps the following.

Album Artist: This field may be used to store the artist name of the album. This is only intended for compilation albums and should otherwise be left blank. eg. "Various Artists". This field is utilized by the *Music Affiliate Integration* in *StationPlaylist Studio*, and the *Lookup* button below.

Track Date: This field may be used to store any date you wish. However, if it is left blank, it will be set to the date the track was created or downloaded to the hard drive and may be used in the [Track Age Criteria](#) feature in *Category Properties*.

ISRC: International Standard Recording Code (optional).

CD Code: This can be a bar code or CD catalog number, etc, however this field should be left blank or contain an Apple Music track ID when using the *Music Affiliate Integration* system in *StationPlaylist Studio*'s Now Playing feature. This feature is used to upload track data to your website with album or track cover images and website/purchase links for the song that is currently playing, and previous songs played. See *Studio*'s documentation for more details.

Lookup: This will perform a lookup at Apple Music for a track matching the *Album Artist* or *Song Artist* and *Album Title* or *Song Title*, and store it in the *CD Code* field, along with an album or track image URL in *URL1*, and the website link in *URL2* below. *StationPlaylist Studio* does this automatically when *Music Affiliate Integration* is enabled. If an album or track is not found in Apple Music's database, "0000000000" is stored in the *CD Code*.

Affiliate Config: Loads a dialog to select settings used for the *Lookup* function above. This information is not stored with the track. If you are using *Studio*, these should match the settings on the *Music Affiliate Integration* options in *Studio*.

- **Affiliate:** Only *Apple Music* is available.
- **Prefer:** *Albums* or *Tracks*. *Studio* will attempt to find the album or song first at *Apple Music*, however, if an album is not found, it will try again searching for the track, and vice versa.
- **Partner Token:** Enter this if you have applied to *Apple Music* to become a partner and receive commission from each sale. Otherwise leave this field blank.
- **Image Size:** Select the size of image to retrieve.
 - *Small:* 80x80 pixels
 - *Medium:* 160x160
 - *Large:* 300x300
 - *Extra Large:* 600x600

URL 1, URL 2 are used primarily for the *Now Playing* facility in *StationPlaylist Studio* to display an album or track cover image and website link respectively on your website. The *Music Affiliate Integration* system in *Studio* will update these 2 fields automatically. Click the *View* buttons beside the URL's to view the image or load the URL into the web browser.

Other may contain any other information you may wish to store. This field is available for output in *Studio*'s *Now Playing* system. A *Break Note Code* may be entered in this field and will be executed by *StationPlaylist Studio* when the track starts playing.

Client is often used for storing an advertisers code or name. This field may be output in the [Spot Summary](#) in *StationPlaylist Creator*, and the *Spot Log* in *StationPlaylist Studio*.

Note: The *Client* information will be overwritten by *Creator* if the track is included in a *Spot Group* and *Client* is entered into [Spot Properties](#).

Categorization Tab: Contains additional track information that can be used in the [Separation Rules](#) options and [Category Properties](#), and in the *Insert Tracks* dialog in *StationPlaylist Studio*.

Year: This is usually the year the song was released. This may be used to search for tracks within a from/to range of years.

Genre: One or more genres may be entered, separated by commas, eg. Pop,Rock. Alternatively, previously entered genres may be selected from the drop-down list. Any new genre entered will be added to the drop-down list. Use the *Delete from list* button to remove the text from the drop-down list.

When multiple tracks are loaded, a genre may be added or removed from all tracks, preserving the information currently in each track, by entering a + or - before the genre. eg. +Instrumental. Any tracks that already have this genre will not have it added twice.

Mood: One or more moods may be entered. This works identically to *Genre* above.

Region: A region, country, and/or language may be entered for this track separated by commas. This works identically to *Genre* and *Mood* above. When using this feature for [Separation Rules](#), it is generally only useful entering minority regions/languages in your music library, and leaving it blank for other tracks.

Rating: Tracks may be given a rating from 1 to 10. 0 is reserved for not rated. The rating can be used with the [Rating Priority](#) feature in the *Separation Rules*.

BPM: The beats per minute of the track. This may be used to search for tracks within a BMP range.

Tempo: A less precise selection of beat speed with 5 values from Slow to Fast.

Energy: 5 values from Low to High.

Gender: Male, Female, or Group.

Exclude from Requests: Check this box to prevent this file being available for online song requests via *StationPlaylist Studio*.

Timing Tab: *Creator* uses this information for determining an accurate accumulative duration for each hour, and the number of tracks scheduled when [Time Checking](#) is enabled. These settings also control the playback duration and timing of the tracks in *StationPlaylist Studio*.

Duration: The full duration of the track. This is usually calculated automatically and should only be manually adjusted if the calculation is incorrect for whatever reason. The more common cause of an incorrect duration is a variable bitrate (VBR) MP3 file which is missing a VBR header. Utilities exist to fix this problem in MP3 files.

The duration is only used if the *Segue Time* has not been established. The actual play duration is calculated as *Segue - Cue*.

Intro Time: This may only be useful in the *Pro* edition of *Studio*, to specify the length in seconds of the song ramp. This is the length of time from the *Cue* point (below) to the start of the vocals in the song, which may be useful for a DJ during live shows, or during automated VT/Song overlapping. This value is normally set in the *Track Tool* while listening to the track. See the [Track Tool](#) chapter for more details.

Outro Time: This may only be useful in the *Pro* edition of *Studio*, which will utilize this value when an automated voice track/voice intro/voice outro is scheduled after a song. This is not required when recording voice tracks in [VT Recorder](#). This value is normally set in the *Track Tool* while listening to the track. See the [Track Tool](#) chapter for more details.

Hook Start: The position from the beginning of the song where the hook will start, often the start of the chorus. Hook timings are normally set in the [Track Tool](#) while listening to the track.

Hook Duration: The length of time to play from the *Hook Start* position, often between 3 and 6 seconds.

Fixed Crossfade: When unchecked (default), the Cue, Cue Overlap, and Segue times are calculated automatically by *StationPlaylist Studio* based on volumes inside the file. When checked, these values may be entered manually for instances where the automatic calculations are not ideal.

The [Track Tool](#) may be used to set these values by either listening to the track or scanning tracks to automatically determine the best values for an ideal crossfade.

Set these values to zero for the entire track to play with no crossfading. This may be useful for dry spots that should not overlap other dry spots or voice tracks.

Cue Time: The position where *Studio* will start playing the track from. If a track has an *Intro Time* established, adjusting the Cue will also adjust the length of the *Intro Time*.

Cue Overlap: The previous track is allowed to overlap up to this position in the track during crossfading. The previous track will fade out during this period. A value of at least 2.5 seconds is recommended for songs to provide a small amount of overlap.

Segue Time: The position near the end of the track where the crossfade should begin with the next track. This is calculated from the beginning or *Cue* position of the track, not from the end of the track as often used by other broadcasting software.

By default *StationPlaylist Studio* will calculate a *Cue* and *Segue Time* for each track when played for the first time. The [Track Tool](#) may also be used to set Segue positions manually or automatically. *Creator* uses the *Cue* and *Segue Time* as the duration of the track when calculating the accumulative duration of each hour. When this information is not available, *Creator* could schedule too many or not enough tracks for each hour.

Segue DB: Displays the Segue DB setting that was used to calculate the *Segue Time* during an automatic scan in *StationPlaylist Studio*. This value is not visible when a *Fixed Crossfade* is used.

Audio Gain: Adjusts the volume output from the *StationPlaylist Studio* decoder by the selected db value. This is usually calculated automatically using the [Gain Scan](#) feature in the [Track Tool](#) for all the songs in the library. Use *Audio Gain* generally needs to be enabled in Studio's Input options, however, see *Force Gain* below.

Force Gain: When checked, forces Studio to utilize the *Audio Gain* value during playback, even when *Use Audio Gain* is disabled in Studio's Input options. The volume of the track will be adjusted by the selected db value. This may be useful for forcing a music bed to be reduced in volume, for example, when not using *Audio Gain* for songs.

Intro Link/Outro Link: These may contain the filenames of audio files which will be inserted in the playlist every time this track is selected by *Creator* or inserted manually in the Playlist Editor or Studio. It may be used for linking one track with another, such as classical movements together to play the entire works, or a song introduction to a song. Note that song introductions are usually scheduled via *Song Intro & Song Outro* [spot groups](#).

The type of track the intro/outro will be inserted as is selected in the drop down box. Options are Default, Song, Spot, Voice Intro, Voice Outro. *Default* will choose the same track file type as the original file.

A Linked track may also have an *Intro* or *Outro Link*, therefore linking several tracks together. However, an *Intro Link* can only have another Intro Link, and similarly, an *Outro Link* can only have an Outro Link. A Maximum of 100 links in one chain is possible.

Note 1. Only 1 file in the series of tracks should be included in a category or spot group to prevent multiple plays.

Note 2. Links will not work with *Song Intro* and *Song Outro* spot groups.

Note 3. Care should be taken to not cause a link loop where a file links back to a previous track in the same chain. Creator will detect this and cancel the creation.

Note 4. *Schedule Restrictions* (below) set on a linked track can prevent the linked track being inserted. A linked track with an expired Finish Date restriction, will be removed from the linking track during scheduling.

Schedule Restrictions Tab: Creator can restrict selection of this track to specific dates, years, months, days of the month, days of the week, or hours of the day. *StationPlaylist Studio* will also warn when manually inserting a track with restrictions that do not comply.

Start/Finish boxes: A range of dates, years, months, or days for when this track can be selected. Any of the values may be left blank. For example, November 26 to December 26 may be selected with no Year, and the restriction will be used every year.

The additional drop down box to the right of *Year* may be used for selecting a specific date from a calendar.

The *Time* fields are available when a *Day* is selected.

Delete file when expired: This is available when a complete date in the future is selected in the *Finish* box. ie. A Year, Month, and Day is selected. When checked, the file will be deleted from the hard drive when the current date exceeds the *Finish* date during an attempt to schedule the file in a playlist creation. This only occurs if the file is not set to read only in Windows. The file will also be removed from any categories and spot groups.

Days: Tick the checkboxes for the days of the week that the track can be selected.

Hours: For a day ticked above, tick the checkboxes of the hours in the day the track can be selected.

Use the *Copy Monday to All* button to copy all Monday's checkbox settings to the other 6 days.

Use the *Reset On/Off* button to check/uncheck all *Hour* checkboxes.

Right-click the day of the week on the left to toggle the entire row on or off.

Click the hour of the day column number to toggle an entire column on or off.

History Tab: Displays the last 18 times the track was scheduled by Creator, and the last 18 times the track was played in *StationPlaylist Studio*.

Delete SPL Tag (button): This is used to remove the native SPL tag from the file. This does not remove any original foreign tags such as ID3. SPL tags may be removed from all files using the [Remove SPL File Tags](#) option on the *Tools Menu*. This may take some time with multiple tracks have been loaded. *Track Properties* will terminate when completed.

Read Foreign Tag (button): This is used re-read the foreign tag if one exists. eg. MP3 ID3v2.3 tags. This is done automatically when loading the track for the first time into *Creator* or *Studio*. This information is then stored in our own native SPL tags for speed purposes. Changes made to the foreign tags after the files have been loaded into *Creator* are ignored. Creator provides an option on the *Tools Menu* to [Reread All Foreign Tags](#) for all files in all *Categories* and *Spot Groups*.

With multiple tracks loaded, this could take some time. *Track Properties* will terminate when completed.

Preview Player

The Preview Player is a very simple audio player for playing individual tracks for previewing. It is available from the [Playlist Editor](#), [Track List](#), [Track Tool](#), *StationPlaylist Studio*, and the Windows right-click context menu. It may also be loaded manually from the Windows Start menu / *StationPlaylist* folder.

The *Preview Player* should only be used when *Creator* is installed on a different PC to the broadcast PC, or when two soundcards are installed and the *Preview Player* is set to play out the second soundcard. Use the *Configure* button to specify the soundcard to use.

The 7 button controls are also available as single key shortcuts as follows.

P = Play
Home = Restart play
End = Jump 12 seconds from the end
U = Pause
S = Stop
O = Open
C = Configure

Other available keys are:

Left or Up Arrow = Jump back a few seconds
Right or Down Arrow = Jump forward a few seconds
Page Up or R = Jump back 10%
Page Down or F = Jump forward 10%
Home or Ctrl R = Restart play
End or Ctrl F = Jump 12 seconds from the end

Configuration

Output Device: Select the DirectSound output device (soundcard).

Buffer Size: The size of the DirectSound audio buffer. The default of 500ms is recommended for most PC's. Fast modern computers may handle a smaller buffer down to 200ms. Slow PC's or PC's with high CPU utilization may require a larger buffer. The maximum is 2000ms. A buffer too small may result in small pauses or stuttering in the audio. A large buffer will result in high latency.

Stay on Top: The player will stay visible at all times.

Use ReplayGain: Applies Replay Gain to the output volume, if this information has been set for each track in the [Track Tool](#) / [Gain Scan](#) feature.

Playlist Editor

The *Playlist Editor* provides a way of viewing, editing, or printing a playlist which has been generated. The *Editor* also provides , playing, searching, replacing, inserting and deleting of tracks from the playlist.

The *Playlist Editor* includes voice track recording and the merging of 3rd party traffic/commercial logs. (*Pro edition*)

All button functions are described in the [Playlist Editor Menu Options](#) chapter.

The editor may be loaded from Creator, from the Windows Start / StationPlaylist menu, and from *StationPlaylist Studio*.

Loading the editor from the Start menu shortcut and Studio may be protected with a password. See [Change Editor Password](#) in the Advanced options.

Editor loads a log file generated at every playlist creation. The log file is stored in the *Logs* folder and is named in the format: *yymmdd-hh.plg*, eg. *201005-00.plg*, for a playlist created to start on October 5, 2020. The separate playlist files used by the automation software are re-created when saving changes made in the *Playlist Editor*.

A Creator installed on another PC may be used to edit playlists and record voice tracks using the *Playlist Editor*. This Creator does not need access to the categories, rotations, etc, set up on the primary Creator.

Multiple *Playlist Editors* may edit the same playlist log simultaneously, however, it is important for 2 or more

operators to not edit the same hour of the same day simultaneously as only the last Save will take effect.

The *Editor* window displays one hour of tracks at a time. The hour may be selected using the *Day* and *Hour* pull down lists, or browse sequentially by clicking the   buttons, or pressing the *Page Up* / *Page Down* keys.

Tracks which do not currently exist on the hard drive will appear in a strike-out font.

With the exception of the first column showing the *Scheduled Time*, the other columns showing track information may be moved using drag & drop, and the column sizes may be adjusted by dragging the column dividers. Columns cannot be added or removed. To not see a column, reduce the size so it is not visible or move it to the right.

Additional information about a track may be displayed by hovering the mouse over the track icon to the left of the artist. The information displayed, if available in the file tags, is the Year, Album, Composer, Conductor, Comments, Hook times, Track Ending, and the last 18 times the track was scheduled and played. This information can be placed in a permanent window by clicking the track icon after hovering the mouse over it. The information may be viewed or entered in the [Track Properties](#) dialog.

Total Duration box near the top-right shows the accumulated duration of all tracks in the hour being viewed. By default, the box will be highlighted in red if the total duration is under 60 minutes. This behavior can be changed in the Tools menu to highlight hours that are over 60 minutes instead. Hover the mouse over the value to show the time difference required to reach 60 minutes.

The first panel of the status bar shows the date/time the playlist was created or last modified. The next panel displays *Modified* if any changes have been made. The 3rd panel shows the estimated time the selected track is scheduled to play. The last panel displays the Rotation/Schedule used to create this hour. When multiple tracks are selected, the 3rd panel in the status bar shows the combined duration of the selected tracks.

In addition to using the [Insert Tracks](#) dialog, supported audio files may be inserted by dragging files from a Windows folder into the *Editor*. By default, tracks are inserted as *General Tracks / Songs* , however, hold down the following keys during the drop to insert as a different track type...

-  Ctrl: Normal Spot
-  Ctrl+Shift: Jingle
-  Shift: Voice Intro (Creator Pro)
-  Alt: Voice Outro (Creator Pro)
-  Ctrl+Win: Commercial

Copy/Paste from a Windows folder is also available for inserting files.

Note that songs inserted outside of the [Insert Tracks](#) dialog do not have the [Separation Rules](#) enforced. However, [Schedule Restrictions](#) are enforced.

Inserting a track with a *Link Intro* or *Link Outro* set in [Track Properties](#) will cause the linked track(s) to also be inserted.

M3U and PLS playlist files may also be dragged & dropped into the Playlist Editor and the tracks within the playlists will be loaded. Hold the Alt key down during the drop and the actual playlist file will be inserted instead. This may be useful if the playlist can change before the audio player (eg. StationPlaylist Studio) loads the playlist.

[Voice Tracks](#) are displayed with a pink microphone icon .

Playlist Editor Menu Options

Many of the editing options listed below are also available from Toolbar buttons or a right-click popup menu.

File Menu

Open Playlist Log: Opens the *Windows Open File* dialog to select a playlist log file (.PLG files) created in previous sessions. The *Playlist Editor* loads the last generated playlist log by default. The *Open* tool button supports a drop down list providing quick access to the last several logs.

Save Playlist: This menu item appears when changes have been made to the playlist log. It saves all changes to the creation log file and re-creates the playlist files for the hours that have been modified. It also re-creates the HTML playlist files, *Track Summary*, and *Spot Summary* log files if required.

Refresh Playlist: This menu item appears when no changes have been made to the playlist log. It rewrites all playlist files, HTML playlist files, *Track Summary*, and *Spot Summary* log files if required. However, if [Overwrite existing playlists](#) is unchecked in the *Playlist Format* options, only playlist files that do not exist will be created.

Print Playlist: Print all or portions of the playlist to the selected printer device or file. The printing will be in color on a color printer if [Use Colored Items](#) is enabled on the *General* options page.

When the *HTML Title* is not blank in the [Playlist Options](#), it will be used in the heading of this report and the following two reports. A print dialog will pop up with the following options.

- **Days from / to:** Select the inclusive range of days to print from the pulldown lists.
- **Hours from / to:** Select the inclusive range of hours to print from the pulldown lists.
- **Save Hour Range:** When checked, the Hours from/to options above are stored permanently for next time a report is run. When disabled, these options default to all 24 hours.
- **Include:** *Songs, Spots, Commercials, Break Notes*. Select which types of tracks to include or exclude from the report.
- **Double Line Spacing:** A blank line will be inserted between every track in the report.
- **1/2/3 hours per page:** This number of hours will be printed before starting a new page. The paper length may not be able to fit 2 or 3 hours on one page, depending on the number of tracks, and the font size selected.
- **Continuous:** The playlist is printed in a continuous fashion using the least amount of paper. Most hours will span across two pages.

A playlist may also be printed automatically after generating a playlist by checking the [Auto Print Playlist](#) option on the *General* options page.

Print Track Summary: Print the [Track Summary](#) on the selected printer. The *Track Summary* is an optional log file generated during playlist creation if enabled in the [General Options](#). The CSV log file may be directly loaded into a spreadsheet if required. This report is designed to provide details for royalty reporting requirements, however, modern versions of Studio can produce a similar CSV file with a date range, so this feature is not so useful. Two report settings are available.

- One Line (Number of times scheduled, Artist, Title, Album, Length only)
- Two Lines (also Composer, Record Label, CD Code, ISRC)

Print Spot Summary: Print the [Spot Summary](#) on the selected printer. The *Spot Summary* is an optional log file generated during playlist creation if enabled in the [General Options](#).

Filter: A portion of a Spot Group, Client, or Filename may be entered to limit the report to this criteria.

Three report settings are available:

- Spot Group Summary (least detail) - provides the total usage of each *Spot Group*
- Spot File Summary (more detail) - provides the total usage for each spot filename in a *Spot Group*
- Spot Detailed Summary - provides details of the date/time each spot file was scheduled.

Play Selected: Load the selected track in the [Preview Player](#). This is only available when the [Enable Track Preview](#) option is checked in the [Playlist Options](#).

Track Properties: Opens the [Track Properties](#) window which displays information regarding the selected file. Most of the information may be modified. The information includes the artist, title, intro time, duration, and last scheduled times.

Load in Track Tool: Load all the selected tracks into the [Track Tool](#). This is equivalent to the *Track Tool* button on the tool bar.

Load in Notepad: This item is visible when a Break Note is selected containing lengthy text. The note will be loaded into Notepad. Hovering the mouse over the track icon of a Break Note will also display the note in a temporary window.

Open File Location: Loads the folder of the selected audio file into Windows File Explorer.

Revert to Saved: This will ignore all changes made since the last Save and re-load the playlist log file again.

Restore Backup Log: This will restore the backup log to the current playlist log and load it into the editor. This effectively restores the playlist to before the last Save.

Close: Close the *Playlist Editor*.

Edit Menu

Undo Last Change: Undo the last modification made to the playlist. Multiple *Undo*'s are not supported.

Cut: Store the selected track(s) for pasting in a different position in the current hour, or any other hour in the playlist. The selected tracks will be deleted once pasted. Drag & drop is also available for moving tracks up or down the playlist.

Copy: Store the selected track(s) in the Windows Clipboard for pasting to other positions in the current hour, or any other hour in the playlist, or a different playlist log. Pasting in a text box, such as a web search engine, will paste the Artist - Title.

Paste: Insert the stored track(s) from a previous *Cut* or *Copy* operation. A *Copy* operation may be pasted into multiple positions. [Timed Events](#) from one hour may be cut or copied to other hours, and the event hour will change automatically.

Paste from Explorer: Files may be copied from a folder in Windows File Explorer and pasted into the playlist. Drag & drop from a Windows folder is also supported for inserting files.

By default the tracks will be inserted as a *General Track* with a CD icon.. Hold the Ctrl key down during the paste to insert as a Spot; Shift key for a Voice Intro, Shift+Ctrl as a Jingle, and Ctrl+Windows for a Commercial. These also apply to the Alt+P keyboard shortcut for this menu item. eg. Ctrl+Alt+P inserts as a Spot.

Delete: Delete the selected track(s).

Randomize: Randomizes the order of 2 or more selected tracks.

Select All: Select all the tracks in the current hour.

Move Up: Move the selected track up one position in the playlist.

Move Down: Move the selected track down one position in the playlist.

Replace (same artist): Loads the [Insert Tracks](#) dialog with all tracks displayed from the selected track artist in the same *Category* or *Spot Group*.

Replace (any artist): Loads the [Insert Tracks](#) dialog with all tracks displayed from the selected track *Category* or *Spot Group*.

Instant Replace (same artist): The selected track(s) will be replaced by another track from the same artist in the same *Category* or *Spot Group*. The *Song & Artist Repeat Intervals* are taken into account. This is not available for *Timed Events*.

Instant Replace (any artist): The selected track(s) will be replaced by another track selected randomly from the same *Category* or *Spot Group*. The *Song & Artist Repeat Intervals* are taken into account. This is not available for *Timed Events*.

Change to General Track/General Spot/Voice Intro/Commercial: Audio tracks inserted manually into the playlist viewer may be changed to a different track type. For example, if some commercials were manually inserted accidentally as songs (in green), select the tracks and choose *Change To Commercial*. Timed events and tracks loaded from a playlist cannot be changed.

Make Timed Event: Converts an existing spot or break note in the playlist to a [Timed Event](#).

Insert Tracks: Opens the [Insert Tracks](#) dialog to insert specific tracks from the hard drive, or search for tracks to insert using various criteria.

Tracks may also be inserted by dragging audio files from a Windows folder, or copy/paste, into the playlist. By default, tracks are inserted as *General Tracks* . Hold the Ctrl key down during the drop to insert as *General Spots* , or the Shift key to insert as a *Voice Track / Song Intro* .

Search Menu

Find/Replace: Displays a non-modal form to search for, replace, or delete tracks in the playlist. See [Find/Replace Dialog](#).

Previous Hour: Displays the previous hour (*Page Up*).

Next Hour: Displays the next hour (*Page Down*).

Go To First Hour: Jumps to the first hour of the playlist.

Go To Last Hour: Jumps to the last hour of the playlist.

Go To Current Hour: Jumps the playlist to the current day/hour if included in the current log. This is equivalent to the  tool button

Tools Menu

Record a Voice Track (Creator Pro): Providing a [Voice Track Recording Application](#) has been established in the *Advanced Options*, this will load the [Voice Tracking dialog](#) and the recording application (usually [VT Recorder](#)) to record a voice track, which will be automatically inserted into the playlist at the selected position.

An empty WAV, OGG, or MP3 file is generated with a unique filename based on the [VT Filename Format](#), and is loaded into the recording application. Once the track is recorded, the recording application must be closed and changes saved before recording another track.

Double-clicking a [Voice Track Marker](#) scheduled in the playlist will also activate this function.

Record Multiple Voice Tracks (*Creator Pro*): Opens the [Voice Tracking dialog](#) to record a voice track for each Voice Track Marker in the playlist. [Voice Track Markers](#) are added to rotations in [Rotation Properties](#).

Traffic Importer (*Creator Pro*): Opens the [Traffic Importer](#) window. This facility provides integration with 3rd party Traffic/Billing software.

Music Log Importer (*Creator Pro*): Opens the [Music Log Importer](#) window. This provides the ability to use Creator solely for importing a music log created by a 3rd party music scheduler, and create playlist files suitable for *StationPlaylist Studio*.

Highlight Long Tracks: Tracks longer than the selected duration will be highlighted in a shaded color. This may be useful to highlight lengthy tracks selected near the end of the hour.

Highlight Total Duration under 1 hour: The *Total Duration* displayed near the top-right will be highlighted in red when the length of all tracks in the hour being viewed is under 60 minutes.

Highlight Total Duration over 1 hour: The *Total Duration* displayed near the top-right will be highlighted in red when the length of all tracks in the hour being viewed is over 60 minutes.

Insert Tracks

Use the *Insert* button in the Playlist Editor, or the [Insert Tracks](#) option on the Edit menu to open the *Insert Tracks* window.

Tracks may be inserted manually from the hard drive using the *Insert Files* and *Add Files* buttons, or search the categories and spot groups using various criteria.

A dialog will appear asking for the duration of a track if Creator is unable to calculate it for any reason.

Inserting a track with a *Link Intro* or *Link Outro* set in [Track Properties](#) will cause the linked track(s) to also be inserted.

Track Type: Select the type of tracks you wish to insert into the playlist.

A [Break Note](#) is a non-audio track which may contain text for an operator to read, or a code which the automation software (eg. *StationPlaylist Studio*) can execute to perform a function or set an option. A break note with the description **VT* or *VT Marker* will be converted to a [Voice Track Marker](#).

Additional Parameters:

Multiple Positions: The selected track(s) may be inserted multiple times in the playlist. During an *Insert*, a *Select Positions* dialog will appear to select the days, hours and minutes the tracks will be inserted.

Note that *Multiple Positions* only works when using the *Insert* button with selected tracks in the search results list, not the *Insert Files* button.

The other parameters will be available depending on the type of track selected above. A *Timed Spot* and *Timed Break Note* requires a start *Minute* and *Second*, and Event Type of *Play Next*, *Instant* or *Fixed*. See the [Timed Events](#) chapter for more information.

A *Minute* value of 60 is available for [Timed Events](#). These tracks will always be scheduled for the end of the hour. In *StationPlaylist Studio*, these tracks will be played at a calculated time so the last one finishes precisely at the top of the hour.

A [Break Note](#) may have an optional *Duration* and *Note*.

Insert Files (*button*): An *Open File Dialog* will appear where one or more audio files may be selected to insert

directly into the *Playlist Editor*. If a track is selected in the editor during the insert, the inserted track(s) will be inserted above it, otherwise the inserted track(s) will be appended to the bottom.

Add Files (button): An *Open File Dialog* will appear where one or more audio files may be selected. These are inserted into the *Track List* below and not directly into the *Editor*.

Search Criteria: Enter a portion of one or more details into the *Search Criteria*. The search uses information entered into [Track Properties](#) for each track. The fields should be self explanatory. The keyboard shortcut Alt+C will set the focus to the first field in the *Search Criteria*.

Separation & Restriction Rules: This checkbox has 3 possible settings.

- **Checked:** Search results will not include tracks that violate the song, artist, title, album [Separation Rules](#) or [Schedule Restrictions](#) for the selected insert position. Manually inserting a track that violate rules will display a warning message and ask for confirmation.
- **Unchecked:** Search results will include all tracks which may be inserted with no warning message.
- **Partially checked** (solid square): Search results will include tracks that violate rules, displayed in an italic font, and can still be inserted with no warning message.

Search (button): The *Track List* will be cleared, and all tracks that match the *Search Criteria* will be displayed in the *Track List* instantly. The *Enter* key will also execute this button while the focus is in the *Search Criteria*.

Track List: The track details of search results, and files selected using the *Add Files* button, are placed here. This area may be used as a temporary storage place for tracks before inserting them into the playlist.

Much of the [Track Properties](#) data is displayed in separate columns. Columns may be moved using drag & drop, and the column sizes may be adjusted by dragging the column dividers. Click a column header to sort the tracks alhabetically by that column data. Click again to sort in reverse order. Columns cannot be added or removed. To not see a column, reduce the size so it is not visible or move it to the right.

The *Duration* column displays the actual play time, not the full duration of the track. The play time is calculated as *Segue - Cue*.

The *Ending* column is determined automatically, based on a *File Scan* of the track in the [Track Tool](#), or when *StationPlaylist Studio* plays a track for the first time.

One or more tracks may be inserted from the *Track List* into the *Editor* by highlighting the tracks and clicking the *Insert* button. The *Enter* key will also execute the *Insert* button while the focus is in the *Track List*.

The correct *Track Type* should be selected before inserting tracks into the playlist.

The keyboard shortcut Alt+R will set the focus to the *Track List*.

Some of the following functions are also available on a **right-click popup menu**.

Clear (button): Removes all tracks from the *Track List*, clears all search criteria, and resets the *Track Type* to *Category*.

Preview (button): Loads the selected track(s) into the [Preview Player](#), if enabled in the [General options](#).

Close On Insert (checkbox): When checked, the *Insert Tracks* dialog will close after a track insertion. Uncheck to insert multiple times.

Insert (button): The highlighted tracks in the *Track List* will be inserted in the playlist. The *Enter* key will also execute this button while the focus is in the *Track List*.

Track Properties (menu): Load the selected track(s) into [Track Properties](#).

Select All (menu): Select all the tracks in the search results.

Copy (menu): Copy the selected tracks to the clipboard for pasting in the *Playlist Editor*, [Track List](#), or *Studio*. Pasting in a text box, such as a web search engine, will paste the Artist - Title.

Voice Tracking Dialog (Creator Pro)

This dialog is displayed when selecting the [Record](#) feature in the *Playlist Editor*, or double-clicking a [Voice Track Marker](#) scheduled in the playlist.

Voice Tracking provides the facility to pre-record the announcements for a show that will air later in the day or week. This can emulate a live DJ broadcast, but requires much less time from the DJ. A show spanning several hours can be voice tracked in a few minutes.

When using *StationPlaylist Studio Pro*, Voice Tracks may be played simultaneously (overlapped) with the song ramp (non-vocal start) of the following song. This emulates a live DJ voice over.

This dialog displays the date and time of the current position in the playlist. The time should be accurate if the hours playlist starts instantly, otherwise it is a very approximate time. The dialog also displays the artist - title of all tracks before and after the position in the current hour which may be used to mention previous songs that would have played, and songs coming up. The Intro and Outro times of songs are displayed in the format [Intro/Outro]. eg. [8.5/12.0].

Additional information about any track may be displayed by hovering the mouse over the track icon to the left of the artist. The information displayed, if available in the file tags, is the Year, Album, Composer, Conductor, Comments, Hook times, Track Ending, and the last 18 times the track was scheduled and played. This information can be placed in a permanent window by clicking the track icon after hovering the mouse over it. The information may be viewed or entered in the [Track Properties](#) dialog.

The *Voice Tracking Dialog* is visible on the screen at all times, even if the recording application is loaded and maximized. The default [recording application](#) is the [VT Recorder](#).

When using the [Record Multiple Voice Tracks](#) facility with [Voice Track Markers](#), the dialog locates the first occurrence of a *Voice Track Marker* in the playlist starting at the current selected hour. The dialog provides options to record a voice track, and progress on to the next marker in the playlist.

Note: After recording a voice track, the recording application must be closed (terminated) before the voice track will be inserted into the playlist. The recording application will be opened each time a new voice track is to be recorded.

Multiple Voice Track Recording

The following options are only available when using the [Record Multiple Voice Tracks](#) facility.

Next Button: Moves the dialog to the next voice track marker in the playlist ready to record another voice track.

Auto Next: When checked, the dialog automatically moves to the next voice track marker in the playlist after recording a voice track.

Record Button: Creates an empty WAV, OGG, or MP3 file with a unique filename, opens the [recording application](#) and loads the empty audio file ready for recording a *voice track*. The recording application must be closed and changes saved before the recorded track is inserted in the playlist. Executing the *Record Button* again without moving to the next marker will edit the existing voice track. The unique filename depends on the [VT Filename Format](#) option.

Auto Record: When checked, the recording application is loaded automatically after the next marker is loaded. This will occur when the *Next* button is clicked, or when the *Auto Next* checkbox is enabled.

When both *Auto Next* and *Auto Record* are checked, the recording application is loaded for each voice track marker in succession. This provides the most efficient option for recording multiple voice tracks.

Global Options

The following options are available in single and multiple recording mode.

Play Button: Plays the selected track in the dialog using the [Track Preview](#) player.

Override Default Intro Timing: This option is redundant and unavailable when using [VT Recorder](#) as the [recording application](#).

This option will generally only be useful when using the *Voice Track/Intro Overlap* feature in *StationPlaylist Studio Pro*. *Intro Timing* is used to control the overlap timing in *Studio*. See *Studio's* help regarding the *Intro Timing* option in the *Event Times* options.

A value of zero will disable overlapping for the current voice track, and will be played sequentially. This may be useful if the voice track has a music bed.

A negative value will result in the voice track starting while the previous track is finishing. The next track will then start after the voice track has played for the selected number of seconds. A positive value will attempt to play the voice track this number of seconds after the next song starts, if time permits.

When unchecked, the default *Intro Timing* settings in *Studio* apply.

[SPL Recorder](#) can also set an *Intro Override* while recording a voice track. In this case leave *Override Default Intro Timing* unchecked in the *VT Dialog*.

VT Recorder

Requires *StationPlaylist Studio* to be of use. *VT Recorder* may be used to record voice tracks in between tracks in the [Playlist Editor](#), *Remote VT*, or *StationPlaylist Studio*. The previous song and the selected (next) song is also optionally loaded to enable listening to the outgoing and incoming songs while recording the VT to emulate announcing a live show.

When loaded from the *Playlist Editor* or *Studio*, the filename will be set automatically based on the [VT Filename Format](#) option. Ensure this is set to either an ogg, mp3, or wav file extension. Ogg Vorbis is similar to MP3 but provides better sound quality at smaller file sizes.

Operation has been made as simple as possible where only one *Start* button or keyboard key is used to start each action in the VT recording process.

VT/Song Overlap

This setting determines what actions are available.

Automatic: With this option selected, the only colored section will be *VT Recorder* in green. The Start button will only display *Start Recording*, *Stop Recording*, and *Save & Exit*.

This will produce identical results to using [SPL Recorder](#) instead of *VT Recorder* to record voice tracks. Voice track / song intro overlapping will be automated by *StationPlaylist Studio*. This can sound very close to manual voice tracking with the VT overlapping the outgoing/incoming songs based on preset intro and/or outro times set on songs in the [Track Tool](#). If no intro or outro times are set on the incoming/outgoing tracks, this option works

identically to *No Overlap* below. With the other options below, song intro/outro times on songs are not required and will be ignored.

Manual Outgoing/Incoming: Select this option to talk over the end of the previous song and also the start of the next song. When selected, the *Outgoing Track* and *Incoming Track* sections will be colored pink and yellow. The Start button will display in this order *Start Outgoing*, *Start Recording*, *Start Incoming*, *Stop Recording*, and *Save & Exit*.

Manual Outgoing Only: Select this option to only talk over the end of the outgoing song. In Studio, the next track will start when the voice track finishes. Only the *Outgoing Track* and *VT Recorder* sections will be colored. The Start button will display in this order *Start Outgoing*, *Start Recording*, *Stop Recording*, and *Save & Exit*.

Manual Incoming Only: Select this option to only talk over the start of the incoming song. In Studio, the VT will start when the outgoing track reaches the Segue position. If the outgoing track has audio after the Segue position, such as a fading song, this audio will be heard under the VT when it starts. Only the *Incoming Track* section will be colored. The Start button will display in this order *Start Incoming*, *Start Recording*, *Stop Recording*, and *Save & Exit*.

Hint: Double-click the Start button to start VT recording and the incoming track at close to the same time.

No Overlap: Select this option to record a voice track that will not overlap the outgoing or incoming tracks, such as a voiced commercial. Any intro or outro times on the incoming/outgoing tracks will be ignored. The only colored section will be *VT Recorder* in green. The Start button will only display *Start Recording*, *Stop Recording*, and *Save & Exit*.

Actions

Start Outgoing: Starts the outgoing track playing from near the end of the track based on the *Play Outgoing Track* time set in the options below. This is available when *VT/Song Overlap* is set to *Manual Outgoing/Incoming* or *Manual Outgoing Only*.

The Outgoing Track appears pink in color when enabled and shows the filename, the remaining time to play to the [Segue](#) position, and an Offset. The Offset will be set automatically to the remaining time of the song when *Start Recording* is activated. The Offset can be manually adjusted for previewing.

While the outgoing track is playing, the left/right arrow buttons will skip the track 5 seconds back or forward.

Start Recording: Starts recording audio from the *Audio Input Device* set in the options. The green *VT Recorder* section displays the generated VT filename and recording time.

Start Incoming: Starts the incoming track playing. This is available when *VT/Song Overlap* is set to *Manual Outgoing/Incoming* or *Manual Incoming Only*.

The Incoming Track appears in yellow when enabled and shows the filename, elapsed time, and an Offset. The Offset is set automatically and represents the start position of the VT in relation to the start of the incoming song.

With *Manual Outgoing/Incoming* selected, the Offset is a negative time as the VT starts before the incoming song. With *Manual Incoming Only* selected, the Offset is a positive time as the VT starts after the incoming song.

The Offset can be manually adjusted for previewing.

Stop Recording: Stops recording the voice track. Any incoming/outgoing track playing will be faded out. At this stage a Preview may be done and the Offsets adjusted if required.

Save & Exit: When happy with the results, select this action to store the voice track and offsets and insert in the playlist.

Music Bed

A music bed may be selected from the drop down menu and played under a voice track if the outgoing song finishes early and it is too early to start the incoming song. A folder containing music beds is configured in the [Options](#) below.

When a bed is selected, and a VT will be recorded/played over an outgoing song, the *Start* button will show *Start Music Bed* after the outgoing song has reached its segue position. The bed will fade out when recording finishes or when *Start Incoming* is selected.

The music bed audio is mixed together with the microphone audio into the voice track file.

Buttons/Shortcuts

Start: Activates the next action. The actions available depend on the *VT/Song Overlap* option described above. The button label changes to describe the next action.

The same button or key press is used to start each action. The key shortcut can be configured in the options below.

Preview (P): Preview the voice track, including the outgoing and incoming songs if applicable. This emulates what it will sound like when played in Studio.

Pause (U): During a recording process, the outgoing track, incoming track, and VT recording processes will be paused. While previewing, will pause playback. Press again to unpause.

Stop (S): While recording process, will stop recording and reset ready to start again. Any recorded voice track will still be available for previewing and manual Offset adjustments. While previewing, will stop playback.

Clear (Del): Delete the recording and reset ready to start again.

Save (X): This will stop recording (if recording), save the recorded voice track, and exit. This is not normally used, as the main Start button is generally used to execute all the actions which includes *Save & Exit*. However, it may be used after adjusting the Offsets after a Preview, or to skip playing the incoming track.

If an incoming track was to be played next, the Offset will be left at whatever it was set to. A zero Offset will prevent the VT overlapping the incoming song.

Options (O): Displays the *Options* window (below).

Help (F1): Displays the documentation.

Carts (1 & 2 keys): *Cart 1* and *Cart 2* may be used to play/record a sound effect, for example. The cart audio is mixed together with the microphone audio into the voice track file. The 2 cart files are selected in the *Options* below, or by right-clicking each Cart button. A cart that is playing may be stopped by clicking the same Cart button again.

Up/Down Arrows: The Ctrl Up/Down arrow keys on the keyboard will adjust the *Outgoing Song Offset* value. Shift Up/Down arrow keys will adjust the *Incoming Song Offset* value.

Options

Start shortcut key: The Start button shortcut may be set to *Enter* or *Space*.

Ignore 0 Intro on Incoming Tracks: When unchecked and the incoming track has an Intro Time of 0.0 set, which means the vocals start immediately and voice tracks should not overlap, the *VT/Song Overlap* option above will

automatically change to *Outgoing Only* if it is usually set to *Outgoing/Incoming*.

When checked, an Intro Time of 0.0 will be ignored and leave *Outgoing/Incoming* set. This may be necessary to force a music bed to fade out over the incoming song.

Audio Output: Controls the playback.

- **Device:** Select the DirectSound output device (soundcard) used for the Outgoing/Incoming tracks and Preview.
- **Buffer Size:** The size of the DirectSound audio buffer. The default of 500ms is recommended for most PC's. Fast modern computers may handle a smaller buffer down to 200ms. Slow PC's or PC's with high CPU utilization may require a larger buffer. The maximum is 2000ms. A buffer too small may result in small pauses or stuttering in the audio. A large buffer will result in higher latency.
- **Volume Fade Simulation:** Simulates the volume reduction of the Outgoing/Incoming tracks that will occur in *StationPlaylist Studio* when the voice track is playing. Studio has it's own fade DB setting that will be used.
- **Play Outgoing Track:** The outgoing track will start playing this number of seconds before the segue position near end of the track. The default is 20 seconds.
- **Use ReplayGain:** When checked, all tracks with ReplayGain information in the file tag will have the volume of the outgoing and incoming songs adjusted during playback in *VT Recorder* to provide a more consistent audio volume for the DJ. The [Track Tool](#) supports a Gain Scan to calculate the average loudness of each track. This does not adjust the playback volume in *StationPlaylist Studio* unless it also has *Use ReplayGain* enabled.

Music Bed: See the Music Bed section above for more details.

- **Folder:** Select a folder containing music beds. The sample rate of the music bed files needs to match the sample rate of the *Audio Input* selection below, otherwise a warning will be displayed. Only 16-bit audio files are supported.
If a *Mono* option is selected in the *Audio Input* options below, the music bed tracks can be stereo or mono.
If a *Stereo* option is selected, the music beds need to be stereo.
- **Volume:** The volume of the music bed will be reduced by the selected decibal setting when played.

Carts: Filenames may be selected here for the 2 Cart buttons, as discussed in the Carts section above.

Audio Input: Controls the VT recording.

- **Sample Rate:** A sample rate of 44100 or 48000 may be selected.
Note 1: Only use 48000 if your mixer or soundcard does not support 44100, or most of your music files are sampled at 48000.
Note 2: The DSP plugins Tomass Limiter and Sound Solution only support a 44100 sample rate.
- **Device:** Select the audio input device (soundcard) to record from, often named *Microphone* or *Line-In*.
- **Mixer (Windows XP only):** Select the recording mixer on the input device. This is often *Microphone*, *Line In*, or similar.

- **Volume:** Adjust the volume until the VU meter on the main window is just touching the red area very rarely. If the entire red area is fully lit at any stage, clipping of the audio will occur which results in distortion.

This setting may not work with some soundcard drivers. In this case use the *Windows Mixer* (below) to set the recording volume.

Note: Volume adjustments should be done with no DSP selected.

- **Store Mixer Settings:** When checked, the *Mixer* and *Volume* settings above are stored, and the *Device* will be set to these settings next time the recorder is loaded. When unchecked, the current settings will be read from the *Device* when the recorder is loaded.
- **Channels:**
 - Left/Right Mono:* Produces a mono file containing the left and right mic channels mixed together.
 - Left Only Mono:* Produces a mono file containing only the left mic channel.
 - Left Only Stereo:* Produces a stereo file with the left mic channel duplicated in the right. This is only useful when using stereo music beds.
 - Stereo:* produces a stereo file. Use this when dual microphones are in use providing a stereo signal.
- **Bitrate:** When recording an Ogg or MP3 file, the bitrate affects the sound quality and size of the resulting file. For a mono recording, a bitrate of 96kbps for Ogg and 128kbps for MP3 is usually more than adequate for voice tracks. Large bitrates should not be used with *Remote Voice Tracker* due to slow upload times.
- **Digital Signal Processor:** A Winamp compatible DSP plugin may be used to process the microphone audio as it is recorded. It does not affect the audio output of the incoming/outgoing tracks. The included *Tomass Limiter* is a free 3rd party compressor/limiter which will boost low volumes to keep the voice volume reasonably consistent. Other DSP plugins may be copied to the *StationPlaylist\Engine\Plugins* folder.
- **Remove last 500ms:** When checked, will not include the last roughly 500ms of the recorded voice track. This may be useful to remove the noise of the last key press or mouse click while recording.

Windows Mixer: Opens the Windows "Recording Devices" dialog.

Find/Replace Dialog

Search and/or replace tracks in the playlist. Note the [Separation Rules](#) are not utilized.

Find Next: To search for a track, enter a portion of the filename, artist, or title into the *Find What* field and click *Find Next*. The *Playlist Viewer* will jump to the hour where the next occurrence of a matching item is found. Missing tracks may also be found by selecting {Missing Tracks} in the drop down box.

Select Item: Choose a track to be replaced. This may be done by searching for a track as above, selecting a track in the *Playlist Viewer*, or click the button to search for a track in the [Insert Tracks](#) dialog.

Replace With: Select a track to replace the *Selected* track(s) with. This field may be left empty, in which case a *Replace* operation will delete the *Selected* track(s). Click the button to search for a track in the [Insert Tracks](#) dialog.

Clear Items: Empty all the fields.

Replace: Replace the next occurrence of the *Selected* track with the *Replace* track.

Replace All: Replaces all the occurrences of the *Selected* track with the *Replace* track starting at the current position.

Direction: Searching and replacing may be performed in an *Up* or *Down* direction. If *Circular* is checked, the search and replace operations will wrap around the end and beginning of the playlist.

Close: Close the *Find/Replace* window.

Traffic Log Importer (Creator Pro)

This tool is loaded from the Tools menu in the Playlist Editor.

The *Traffic Importer* provides integration with 3rd party Traffic/Billing software.

Traffic software makes management of advertisements easier, providing automatic schedule positioning, and often provides billing of the advertisements to clients.

Traffic log files are imported and merged with an existing playlist log generated by Creator.

Several options provide compatibility with most traffic software, including:

Natural Log www.nat-soft.com/products_nl9_lite.php

AdMaster www.admaster.info

Radio WorkFlow www.radioworkflow.com

Radio Traffic www.marketron.com/radiotraffic/

For *Natural Log*, select **Generic Text - Long Copy ID's** as the output log format. NL can also reconcile with *StationPlaylist Studio's* Spot Log to ensure the customer is only billed for the commercials that actually played. See the *Track Info & Logging* options chapter in *Studio's* documentation for more details.

We suggest that only commercials within a commercial break are scheduled in the traffic software and not individual jingles or other generic spots in scattered positions. Due to the way the importer works, it will take much less work to have these scheduled by *Creator*. *Creator* can easily schedule spots either side of the commercials for example.

Traffic Log File Requirements:

The traffic log file produced by the 3rd party software must be a fixed column ANSI text file containing the hour, minute, and Track ID or filename.

The hour must be in the 24 hour format (00-23).

The Track ID can be one of the following.

- The filename containing the full path, filename, and file extension
- The filename without the path or file extension, providing these are constant.
- The name of a Spot Group in Creator.

For example, the *Track ID* of 01234567 below can be converted by the importer to *C:\ads\01234567.wav*. Otherwise it relates to the name of a [Spot Group](#) in Creator.

The traffic log file should contain advertisements for one 24 hour period only, to match the same playlist period generated by *Creator*.

Important: Each advertisement in one commercial break must contain the same minute of the hour, as you will see below in the examples.

Here are just some examples of suitable traffic logs. The information shown can appear in any order. Lines may contain miscellaneous information only, if desired, which will be imported as a text [Break Note](#). See *Audio Criteria* below. Additional data on a line can exist and will be ignored. Refer to the documentation of your traffic software for information on how to configure the software to produce compatible formats.

Example 1. *Suggested log structure.*

```

14:18 Client Name          TRACK ID
14:18 Pizza Place        AUDIO 01234568
14:18                    A note to the DJ (break note)
14:39 Corner Store        AUDIO 01234569
14:39 Pizza Place        AUDIO 01234568
14:39 Another Client     AUDIO 01234570
etc

```

Example 2. *A basic format with minimum requirements.*

```

15:18 Track ID
15:18 01234567
15:39 01234568
15:39 01234567
etc

```

Example 3. A filename may be specified instead of a Track ID. The position of the hour, minute and Track ID can be anywhere within the same line. This method allows the use of different folder locations or file formats.

```

16:18:00 C:\oldads\01234567.mp3
16:18:00 C:\newads\01234568.wav

```

Creator Configuration:

Commercial breaks are scheduled in the playlist using the *Commercial Break Note Code*. See [Insert Break Note](#) for information on inserting break notes into a [Rotation](#).

When using *StationPlaylist Studio* as the automation software, the *Studio Break Note Dialog* will appear when inserting break notes. This provides an easy option to insert commercial breaks for a specific minute of the hour.

When using other automation software, the following break note code must be entered manually into the break note *Description...*

***COMM BREAK=mm** , where **mm** is a 2 digit number representing the start time minute of the commercials in the log file. eg. ***COMM BREAK=18** will import the commercials showing in the example logs above that have an xx:18 time.

The hour portion of the time is based on the hour or hours the [Rotation](#) is scheduled in [Schedule Properties](#).

Only one commercial break note is entered for an entire commercial break containing several advertisements.

The minute does not represent the time the commercial break will actually play. It is only used for identification purposes, matching the commercials in the log file to the break note in the playlist.

The *Commercial Break Note* may be converted to a [Timed Event](#) in *Rotation Properties* if more precise timing of the commercial break is required. A *Play Next* timed event is recommended.

Commercials will not be imported for entries in the traffic log file that contain scheduled times that do not match any times specified in the playlist log generated by *Creator*. Similarly, *Commercial Break Notes* in the playlist specifying times that do not exist in the log file will remain in the playlist log but will not be included in the playlists created for the automation system.

A [Commercial Intro](#) spot group may be used to advertise the commercial break, scheduled above and/or below the *Commercial Break Note*. These spot tracks will not play in *StationPlaylist Studio* if no commercials have been imported from the traffic log for that time.

The *Traffic Importer* works best with a playlist generated for an entire day or days starting from midnight.

Traffic logs may be re-imported at any time.

Traffic Importer Options tab:

Automatic Import: When checked, *Creator* will automatically run a *Traffic Import* after every playlist creation. If more than one day of playlists is created, a traffic log file for each day should exist in advance.

Filename Format: The filename format of the traffic log file. If the log file changes name from day to day based on the date, the format may be entered here to save selecting the file manually every day. All standard date and time formatting parameters are supported as described for the playlist [Filename Format](#).

Log Folder: The folder containing the traffic log file. This field is necessary when using *Automatic Import*.

Audio Folder: The folder containing the audio files. This can be left empty if the log contains a full path in the Track ID.

Track ID contains: Select *Filename* if the ID in the traffic log always directly relates to a filename, as in example 3.

Select *Spot Group* when the Track ID always relates to a [Spot Group](#) configured in *Creator*. This option enables 2 or more ads for the same advertiser to be rotated when the same Track ID is imported from the traffic log. This is not necessary when the traffic log includes a separate Track ID/filename for each ad.

Note 1: The [Spot Group Type](#) option in *Spot Properties* is ignored.

Note 2: Spot groups nested inside a spot group is supported, but not categories nested in a spot group.

With *Combination* selected, the importer will first look for a *Spot Group* with the name of the Track ID. If not found, it will assume it is a *Filename*. This option reduces the number of Spot Groups that need to be created when some advertisers have only 1 ad.

Audio Folder (optional): When *Filename* is selected above, specify the folder containing the advertisement audio files. This is only required if the file path is not specified for each audio file in the traffic log file, as in example 2.

File Extension: When *Filename* is selected above, this is required if the file extension is not included as part of the filenames, as in example 2. This field is ignored if a file extension does exist.

Audio Tracks (optional): This may be necessary if some lines in the traffic log are unrelated to a commercial audio file or break note. In this case, enter a specific character or text that exists on each line that only contains a commercial, and specify the *Position* and *Length* of this text.

In example 1 above, *Audio Tracks* should be *Position* 26, *Length* 5, *Contains* AUDIO. *Contains* is case sensitive.

Break Notes (optional): A [break note](#) is text for the operator to read, or it may contain a code for the automation software to act on. Enter a specific character or text that exists on each line that only contains a break note.

Hour: The *Position* and *Length* of the hour in the traffic log file. In example 1 above, this would be *Position* 1 and *Length* 2.

Minute: The *Position* and *Length* of the minute in the traffic log file. In example 1 above, this would be *Position* 4 and *Length* 2.

Client ID (optional): The *Position* and *Length* of a client name or ID. In example 1 above, this would be *Position* 6 and *Length* 20. Ensure the fields are 0 when not being used.

For reconciliation purposes, the Client ID usually needs to be configured the same as the *Track ID* below. The *Client ID* is included as a field output in the *Spot Log* in *StationPlaylist Studio*, which may be used for automatic reconciliation with the traffic software.

The Client ID will be inserted as the track Artist if no file tag exists and the artist cannot be extracted from the filename.

Track ID: The *Position* and *Length* of the filename or Spot Group name in the traffic log file. In example 3 above, this could be *Position 1* and *Length 25*. Spaces at the end of the Track ID will be discarded.

Break Note (optional): The *Position* and *Length* of the break note text or code. This is often the same as the *Track ID*. Set to 0 when the traffic log contains no break notes.

Traffic Importer Details tab:

Open Traffic Log: Displays an *Open File dialog* to select a traffic log file from disk. This is only necessary if the filename changes from day to day and the *Filename Format* and *Log Folder* options have not been set on the *Options tab*.

Log Date: Select the date of the log file when manually importing a traffic log into a *Creator* playlist which contains multiple days. It is recommended that a playlist is generated for 1 day at a time, and this option is then not required.

Import (button): Manually starts the importation of the traffic log, and merging with the playlist for the selected date. This should take very little time.

The memo displays a summary of the merge. This includes the number of commercial breaks defined in the playlist log but not found in the traffic log, and reversely, the number of commercials in the traffic log with no commercial break notes defined in the playlist.

The memo text is saved in a text file named *TrafficImport.log* in the [Log Folder](#).

The commercials imported may be viewed in the *Playlist Editor* before executing a [Save](#) to save the playlist log changes and write a new set of playlist files for the automation system. This can be initiated automatically at every playlist creation by checking the *Automatic Import* option.

An import may be run via the **-t** [command-line switch](#). This may be useful daily via the Windows Task Scheduler.

Music Log Importer *(Creator Pro)*

This tool is loaded from the Tools menu in the Playlist Editor.

The *Music Log Importer* is designed to import a music log created by a 3rd party music scheduler, and create playlist files suitable for *StationPlaylist Studio*. When *Creator* is used for this purpose, *Creator* itself cannot be used for scheduling any tracks. There is no purpose creating categories, spot groups, rotations, etc, with the exception of spot groups when using the *Spot break note described below.

The music log is converted to a playlist log file (PLG) which is editable by the *Playlist Editor*. After the import, the playlist may be edited, including voice tracking, and merging 3rd party traffic logs.

Music Log File Requirements:

The music log file produced by the 3rd party software must be a fixed column ANSI text file containing 24 hours of tracks starting from midnight.

The log must contain at least the scheduled hour of each track, and some means of determining the filename of each track. In the case of a track ID number, in some cases the filename will also need to have the same name as the ID.

Alternatively, music scheduling software can often be configured to output the filename separately. In other cases, the filename may need to be entered into a spare field and output in the log.

The hour must be in the 24 hour format (00-23).

The Filename can be one of the following.

- The filename containing the full path, filename, and file extension
- The filename without the path or file extension, providing these are constant.

A Filename of "01234567" can be converted by the importer to *C:\music\01234567.wav*, for example.

If the hour is not included on every line of the log, an hour marker must exist containing the scheduled hour. There needs to be some method of determining where each hour starts.

Music Log Importer Options tab:

Most of the settings are straight forward so we will not describe every field.

There are several fields which may be used to determine different types of tracks, such as differentiating songs, spots, voice tracks, and timed events. These are not required for basic operation, but if available, will enable advanced features in *Studio*, such as voice track overlapping, and timed events to fire.

The different track types also appear in *Studio* with different icons and in different colors. For example, songs are green, spots are red, voice tracks/intros/outros are pink, break notes are blue.

If the *Duration* is not provided, the importer requires the *Minute* and *Second* for when each track is scheduled to start.

The *Instant* and *Non-Instant Events* will also require at least the *Hour* and *Minute* specified. *Non-instant Events* will start as soon as the current song finishes after the specified time.

Song Intro Time is used only for voice track overlapping (Voice Intros). It is the length of the song ramp or the position of the vocals in the song, in milliseconds. When not available, this information can be entered for the song using the [Track Tool](#).

A *Break Note* can be an informational note to the DJ, or it can include codes to control some of *Studios* settings and features.

A ***VT** break note has a special purpose for Creator only, to insert a [Voice Track Marker](#) into the playlist.

***Spot** is a special break note code available solely for the Music Log Importer. When specified in a 3rd party music log, a track from the [spot group](#) will be inserted.
eg. *Spot=Station ID

Note: *Categories* and *Spot Groups* nested inside a spot group are supported.

Automatic Import: When checked, *StationPlaylist Studio* or the [StationPlaylist Scheduler](#) utility may be used to automatically run a *Music Log Import* every day via the *Auto Playlist Creation* setting in either of these applications. For this to work, the following 2 settings must be specified.

Filename Format: The filename format of the music log file. If the log file changes name from day to day based on the date, the format may be entered here to save selecting the file manually every day. All standard date and time formatting parameters are supported as described for the playlist [Filename Format](#).

This field is necessary when using *Automatic Import*.

Log Folder: The folder containing the music log file. This field is necessary when using *Automatic Import*.

Audio Folder: The folder containing the audio files. This can be left empty if the log contains a full path in the Filename.

File Extension: This is required if the file extension is not included as part of the filenames in the log file. This field is ignored if a file extension does exist for each track.

Music Log Importer Details tab:

This tab is used for manual importing of log files.

Open Music Log (button): Displays an *Open File dialog* to select a music log file from disk before manually importing.

Log Date: Select the date of the log file when manually importing a music log into a *Creator*.

Import (button): Manually starts the importation of the music log. This should take very little time.

Old files are deleted to prevent a build up in some folders, including the *Playlist Folder* and *Voice Track Folder*. See the [Delete generated files](#) setting in Creator's Advance options.

The memo box displays any problems or errors that may occur. The text is saved in a file named *PlaylistImport.log* in the [Log Folder](#).

Once the music log is imported, execute [Save](#) to save the playlist log file and write a new set of playlist files for *Studio*.

StationPlaylist Scheduler

System Requirements:

Windows XP or later.

4MB RAM.

Less than 1MB disk space.

The *Scheduler* is a small Windows System Tray utility installed with *Creator*. It's main purpose is to load playlists into a generic audio player at exactly the right time every hour, day, or week (known as the [Playlist Scheduler](#)).

The *Scheduler* can also schedule the creation of a new playlist in *Creator* before the current playlist expires (known as [Auto Playlist Creation](#)). This may also be useful when *StationPlaylist Studio* is installed on a separate computer to *Creator*.

Note: The *Scheduler* utility should not be used when the *StationPlaylist Studio* automation software is installed on the same PC. *Studio* has it's own *Auto Playlist Creation* feature.

The *Scheduler* may be initially loaded from the Windows Start menu / Programs / StationPlaylist menu. It may then be loaded automatically at Windows logon. see the [Details](#) chapter.

The *Scheduler* program may be loaded multiple times to control multiple players, providing *Creator* is installed multiple times to different folders on the same PC, and registered with unique serial numbers.

Popup Menu

Right-click the teal colored satellite dish icon in the Windows System Tray to activate the popup menu with the following options:

Details: Display the [Details Window](#). Double-click the icon in the System Tray to also activate this window.

View Generate.log: Display the log file using the default text editor (usually Notepad). This file is generated during playlist creation and should be checked regularly for selection errors when using *Auto Playlist Creation*.

Open Creator: Load *StationPlaylist Creator*.

Create Playlist Now: Manually activate the *Auto Playlist Creation* event and generate a new set of playlists.

Enable/Disable Playlist Scheduler: See the [Details Window](#).

Enable/Disable Auto Playlist Creation: See the [Details Window](#).

Load Scheduler at Startup: Enable or disable the *Scheduler* from loading into the Windows System Tray when Windows is started. The *Scheduler* may also be loaded manually from the Windows Start Menu. This option should only be used when one *Creator*/*Scheduler* is installed on the same computer. In a multiple *Scheduler* configuration, use shortcuts in the Windows Startup folder instead.

Exit: Unload the *Scheduler*. No events will occur.

Details Window

Double-click the teal colored satellite dish icon in the Windows System Tray, or select *Details* from the [Popup Menu](#) to display the *Details Window*.

Enable Playlist Scheduler: Enabled/disable the automatic loading of playlists into the player every hour. See [Playlist Scheduler](#).

Auto Playlist Creation: Enable/disable the automatic creation of playlists in Creator. See [Auto Playlist Creation](#).

Player: The full path and executable of the player software.

Start Play at Startup: When enabled, the *Scheduler* will start playing the current hours playlist when the program is loaded. This is useful if the PC is unattended during a power outage.

Unique Winamp Class: This option is only available for the [Winamp](#) media player. When enabled, the Scheduler will load it's own Winamp player instance using a unique Windows class name. This is useful when a manual Winamp instance is being loaded manually for other purposes, and when using multiple Schedulers to run multiple stations on the same PC.

This option may be disabled if other external applications are required to access the same Winamp player.

Winamp Enqueue: This option is only available for the [Winamp](#) media player. This option communicates directly with Winamp to empty the playlist and load a new playlist without truncating the current playing song. Once the current song finishes, any additional tracks will be skipped and the next playlist will start.

This option should be disabled when exact timing is critical for news feeds etc at the top of the hour.

Enqueue Time: When *Winamp Enqueue* is enabled, a time may be entered to specify how many seconds before the end of the hour the new playlist should be loaded. A typical value is 90 seconds. This will help new hours playlists to start closer to the top of the hour. When set at 0, new playlists will always start after the hour changes, and could be as much as 4 minutes later, depending on the length of the last track playing.

Auto Create Playlist in advance: When *Auto Playlist Creation* is enabled above, this permits the playlists to be created hours or days in advance of the current playlist expiring. At the default of 0, playlists will be created 30 minutes before the current playlist expires. The maximum is 168 hours (7 days). This may be useful for voice tracking when several hours or days of playlists need to exist in advance.

Load Playlist (event time): Displays the date and time the next playlist will be loaded into the player, if the *Playlist Scheduler* is enabled.

Create Playlists (event time): Displays the date and time *Creator* will be loaded to create a new playlist, if *Auto Playlist Creation* is enabled.

Load Playlist (button): This option is only available when using the Winamp v2 or v5 audio player. The button will load Winamp if necessary, and insert the current hours playlist, but play will not be started.

Start Play (button): Load the current hours playlist into the player if required, and start the player.

Playlist Scheduler

The *Playlist Scheduler* is designed to automate very low budget home stations using simple audio player software such as [Winamp](#), Windows Media Player, foobar2000, or any player which supports the loading and playing of playlist files. This feature is not usually suitable for use with professional broadcasting playback software.

The *Playlist Scheduler* option should be disabled when using *StationPlaylist Studio*.

The *Playlist Scheduler* event occurs either every hour, day, or week depending on the creation interval set in *Creator's Playlist Options*. An *Hourly* interval is recommended to keep the playlist on time. When this event occurs, the next playlist file is loaded into the player. The current song playing is usually truncated when the new playlist is loaded depending on the players functions. An option exists specifically for the Winamp player to stop this truncation. (see the *Winamp Enqueue* option below).

When utilizing multiple *Schedulers*, with the exception of Winamp, each of the *Schedulers* loaded needs to control a different type of player, such as one controlling *Windows Media Player*, and another controlling foobar2000. Two

Schedulers cannot control the same type of player. The exception to this is the Winamp player which can be loaded multiple times by multiple *Schedulers*.

Creator does not need to be left open for this event to occur. In fact *Creator* should be closed at all times except when maintaining the configuration.

Auto Playlist Creation

Enable/disable the automatic creation of playlists in *Creator*. At default settings, the *Auto Playlist Creation* event occurs 30 minutes before the playlist expires. This time is based on the *Start Day & Hour* set in *Creator's General Options*, and also the *Auto Create Playlist in advance* option. When this occurs, *Creator* is loaded, playlists are created based on the currently saved options, and *Creator* is then terminated.

Any errors that occur during creation are stored in the file *Generate.log* which should be checked regularly. [View Generate.log](#) is an option on the Scheduler's system tray popup menu.

All *Creator* options should be set correctly before this event is activated. Any selection errors due to excessive [Separation Rules](#) are ignored and will result in tracks violating the rules. These errors are also stored in *Generate.log* and should be checked regularly.

A Windows notification will be activated when playlists are being created and if any errors or warnings occur.

Creator should not be manually loaded while playlists are being automatically created. *Scheduler* loads it's own instance of *Creator*. *Creator* should generally be closed at all times except when modifying the configuration.

Note: This same feature is available within *StationPlaylist Studio* automation software and should be used when *Creator* and *Studio* are installed on the same computer.

Welcome.

StationPlaylist Studio is a digital audio broadcast playback system designed primarily for use in broadcast studios, but also used by DJ's in clubs, retail stores, and other situations where professional audio playback is required. It provides automation and live assist operation with a simple interface that any DJ will find easy to use. A stream encoder is included for encoding the audio to a stream for distribution over the internet.

For automation purposes, and to utilize all of Studio's features, a music scheduler is required to provide the programme material in the form of hourly playlist files. *StationPlaylist Studio* in combination with the *StationPlaylist Creator* music scheduler provides the complete solution for radio stations and Internet broadcasters.

Studio may also be used as a DJ jukebox without a scheduler. Tracks may be inserted or dragged & dropped from a Windows folder and played.

Studio incorporates a professional automatic and manual crossfading system to provide professional crossfading (segueing) with one soundcard, with no need for track editing. Additional sound output devices can be utilized for manual crossfading in mixer consoles.

Studio uses a single player interface to make it very simple to operate for live assistance, and yet produce a professional sound.

Many other live assistance broadcasting software use multiple player interfaces. These are generally designed to simulate the old systems of using several CD or record players, which many DJ's are use to. But multiple players are cumbersome and require more concentration and work. More can go wrong.

Although our software uses multiple players internally, these are hidden from view and are utilized automatically by the software. We have simplified the interface so the DJ has little to do except to click Play. Many DJ's and engineers tell us that *StationPlaylist* can produce identical results to multi-player systems but without the hassle, and disasters are much less likely.

All effort has been made to make the software as accessible as possible for blind operators using screen readers. Also, comprehensive 3rd party scripts are available for JAWS, NVDA, and Windows Eyes from our website to provide even better accessibility.

Studio also has limited support for playing [videos](#). Throughout this documentation, most references to **audio files** also refers to **video files**. Please note, video playback utilizes an old and outdated Windows MCI API and not supported any longer.

Minimum System Requirements:

- Windows XP or later, 32 or 64 bit (Windows 11, 10, 8, 7, Vista, XP, Windows Server 2022, 2019, 2016, 2012, 2008, or 2003).
- 1.6Ghz processor
- 64MB RAM (consumed)
- 10MB disk space (consumed)
- 1 full duplex soundcard (optional if only streaming)
- Optional additional soundcard for track previewing

A PC with at least 4GB RAM and 2Ghz dual-core processor or better is recommended for best performance.

Note: Windows Pro is recommended over the Home edition as it has control over the installation of Windows Updates which causes the computer to reboot.

Command-line Switches:

-s This will attempt to load Studio in automation mode, regardless of the *Auto Play at Startup* and *Auto Load Playlists* [options](#).

-c Do not check for contact closure boards. Sometimes the check for closure boards can hang Studio while loading.

-w Start Studio with the Setup Wizard. The Wizard usually only appears the first time Studio is loaded. Alternatively hold the "w" key down on the keyboard while Studio is loading.

Purchasing Information:

To purchase, please visit the website specified on the *Register* or *About* forms available from the Help menu within the software.

Support/Updates:

New releases will be made available for a period of 12 months from date of purchase. Free support is also available for this period by sending a detailed message to the address specified on the Help / About form within the software.

A further 12 months of software updates & support is available for purchase from the website.

© Copyright 2003-2024 StationPlaylist.com. All rights reserved.

Installation

Administrator privileges are required for installation and for initial registration. For normal operation after installation, a restricted user account may be used.

Installation of the purchased full edition of *StationPlaylist Studio* requires executing the installation program *StudioSetupxxx.exe*, where xxx represents the version number. A temporary download link to this file was provided at the time of purchase, along with a serial number and 20 digit code.

If this file or the registration details are lost, please use the support email in the Help/About window. A current support and software updates subscription is required before we can provide these details. The subscription is free for the first 12 months after purchase.

The Demo edition installer, *StudioDemo.exe*, cannot be unlocked to the full version.

Note: The software licence permits the same serial number to be installed on a maximum of 2 PC's at any one time, providing both installations are being used for the same station or audio production. ie.. For backup or testing purposes. Additional licences may be purchased at a much reduced price if required.

If *StationPlaylist Creator* is also being installed on the same PC, Studio should be installed to the same folder so full integration is possible.

The full version may be installed over an existing installation, including the Demo edition, and the existing configuration will be preserved.

When *Studio* is loaded for the first time, the [Registration](#) dialog will appear asking for the Station Name, Serial number, and Code. Care should be given to the Station Name as this cannot easily change once it is entered.

After registration, an [Unlock Key](#) dialog will appear asking for an unlock key. This requires access to the internet, but not necessarily from the PC the software is installed on.

The user licence for *Studio* permits the software to be installed on a maximum of 2 PC's at any one time for backup or testing purposes. Additional licences may be purchased at a much reduced price.

Transferring Data after a New Installation

If Creator is installed on the same computer, please follow the same section in Creator's Installation chapter which provides more detailed information.

It is not advisable to transfer the complete StationPlaylist folder structure or the Data subfolder from one PC to another. This can cause several different problems including Windows folder permission issues. The unlock key will also be transferred, and this will not be compatible with a new computer. This will lead to the software asking for a new unlock key some hours or days after the data transfer.

Install the software from scratch as outlined above. Use the same serial number and 20 digit code provided at the time of purchase. The software will then ask for an unlock key, and a new one will need to be applied for. Once installed and unlocked, exit Studio.

In the StationPlaylist\Data folder of the old computer, copy the file [SPLStudio.dat](#) to the Data folder on the new computer.

This will transfer Studio's options/settings excluding any DSP plugin settings. To transfer DSP plugins and settings, copy the

StationPlaylist\Engine\Plugins folder.

Registration

The *Registration* dialog will appear when this software is installed on the PC for the first time.

The following information must be entered.

Station Name: Care should be given to the *Station Name* as this cannot easily change once it is entered. A minimum of 6 characters (letters or numbers) must be entered.

Any additional installations must use the same *Station Name* for the same serial number otherwise the application for an [Unlock Key](#) will fail. That is the next stage after registration.

Note that the licence permits the software to be installed on a maximum of 2 PC's at any one time, providing both installations are being used for the same station or audio production.

Serial No: Enter the serial number provided in the email at the time of purchase.

Code: Enter the 20 digit code provided in the email at the time of purchase.

The OK button will become available once the required details are entered. After which, the [Unlock Key](#) dialog will appear.

Unlock Key

The *Unlock Key* dialog will appear when this software is installed on the PC for the first time, and after entering the registration details supplied with the software.

The software must be unlocked before it can operate. A different key is required for a different PC.

A new key will also likely be required if the hard drive is replaced or re-formatted.

Note: The software licence permits the same serial number to be installed on a maximum of 2 PC's at any one time, providing both installations are being used for the same station or audio production. The number of installations is recorded in our database when applying for a key.

An unlock key is applied for by visiting an internet web page and entering information that appears on the screen. The unlock key is then emailed to you.

If the PC has internet access, click the large button showing the http address. This will load the web page with the details all entered for you. This greatly reduces typing errors. Just your email address will need to be entered manually.

If the PC does not have internet access, carefully write down the *Station Name*, *Serial No*, and *Machine ID* that appears on the screen. Then visit the web page <https://stationplaylist.com/register> on another PC and enter the details carefully.

Note: As mentioned in the [Registration](#) chapter, the *Station Name* used to unlock the software for the first time is stored permanently in our database, and this name must be used for all future installations, otherwise the application for an unlock key will fail.

Similarly, the email address used to unlock the software for the first time is also stored permanently in our database. The same email address must be used if the software is re-installed. If you have changed email addresses, please contact us so we can update your records -- support@stationplaylist.com.

Operation

- ▶ [Getting Started](#)
- ▶ [Playlists](#)
- ▶ [File Types](#)
- ▶ [Song Database](#)
- ▶ [Track Properties](#)

- ▶ [Main Window](#)
- ▶ [Insert Tracks](#)
- ▶ [Playing Tracks](#)
- ▶ [The Carts](#)
- ▶ [Break Notes](#)
- ▶ [Break Note Codes](#)
- ▶ [Timed Events](#)
- ▶ [Logging](#)
- ▶ [Digital Signal Processors](#)
- ▶ [Internet Streaming](#)

Getting Started

StationPlaylist Studio loads into the Windows system tray (notification area) with a green satellite dish icon at the bottom right of the screen. The program may only be terminated by right-clicking this icon and selecting *Exit*. Closing the main form of *Studio* does not exit the program. This is to minimize accidental closure.

Multiple *Studio*'s may be installed and run on the same PC, provided each *Studio* is registered with a different serial number. When multiple *Studio*'s are required, it is suggested that each *Studio* be set up with a different [User name](#) so each one can be easily recognized in the Task Bar and System Tray.

If a playlist has been generated by *StationPlaylist Creator*, the current hours playlist will be automatically loaded when *Studio* is loaded. This may also be done manually by selecting [Append Next Playlist](#) on the *File menu*. A new playlist will be loaded every hour automatically.

If playlists are not being created by a scheduler, the [Auto Load Playlist](#) and [Auto Play at Startup](#) options should be disabled in the *General Options*. Also in this situation, the [Hour Marker](#) option should be set to *Ignore* in the Advanced options.

When a track scheduler is not being used, tracks may be dragged into *Studio* from Windows File Explorer, or inserted using the [Insert Tracks](#) dialog.

The main window includes large buttons for Play, Stop, Preview*, Automate, Insert, Next (track), Restart, Carts Form* or Mic toggle, and User* or Line-in toggle. These plus some other functions are also available on the [Controls menu](#). The keyboard shortcuts for these functions may be customized on the [Keyboard Controls](#) options page.

*Preview button will only appear if there is room for the button based on the width of the *Studio* window.

*Carts Form toggle button ([View menu](#)) will appear in the Pro edition if the [Mic button](#) is disabled.

*User button ([Change User](#) on the View menu) will appear if the [Line-In button](#) is disabled.

Keyboard shortcuts are displayed beside their associated menu items.

Some keys on multimedia keyboards can be used to operate *Studio* while *Studio* has the focus.

Play/Pause executes the Play button.

Stop executes the Stop button.

Previous Track executes the Up Arrow button

Next Track executes the Next Track function.

The keyboard shortcut Ctrl+Tab will cycle through and bring to focus all non-modal open windows, including the *Options*, *Insert Tracks*, *Listener Stats*, and *Carts Form*.

Playlists

Studio may be used without playlists by manually [inserting tracks](#). This may be suitable for DJ use such as in a club or private function.

However, for automation purposes, *Studio* requires external playlists to load every hour, usually created in advance by music scheduling software. *StationPlaylist Creator* provides the best compatibility for this purpose but other software may be used to create the playlists.

For normal operation, external playlist files should consist of one hours worth of audio files (including spots) in standard or extended M3U format. An exception is when the [Hour Marker](#) option is set to *Ignore*. A playlist may then contain any number of audio files. Only use this option if the playlist does not need to be synchronized with the time of day.

Studio supports loading two types of playlist formats -- M3U playlists (standard or extended), and a custom format based on the Extended M3U format but containing much more track information. It is often difficult or impossible for music schedulers other than *StationPlaylist Creator* to generate a separate playlist for every hour in the custom format required by *Studio*. *Studio* expects an SPL customized M3U playlist to be UTF-8 encoded for non-ASCII characters. A standard M3U playlist will be regarded as ANSI encoded.

The *standard M3U* format does not support different track types, therefore loading these playlists into *Studio* will result in all tracks displaying as a *General Track* (see [Playlist Viewer](#)). *StationPlaylist Creator* provides the customized M3U format which *Studio* requires to identify *Spots*, *Break Notes*, *Timed Events*, etc. Ensure the *Playlist Format* option in *StationPlaylist Creator* is set to the *StationPlaylist Studio* format.

External playlists may be loaded automatically, or manually from the [File Menu](#). For automatic loading, the [Playlist Folder](#) and [Playlist Filename Format](#) must be correct, and [Auto Load Playlist](#) enabled in the options. The hourly playlists are loaded automatically when *Studio* is loaded, and also a time prior to the top of every hour. This time is entered into the [Load New Hour](#) setting and defaults to 15 minutes.

When playlists are loaded, an automatic *Hour Marker* is inserted as the first track, displaying the scheduled start hour for the playlist. The first *Hour Marker* may not be deleted, and only the last *Hour Marker* may be deleted.

Playlists may be created within *Studio* by manually inserting *Hour Markers* and tracks via the [Edit Menu](#) and right-click popup menu. The playlist may be saved to disk using the [Save Playlist](#) option on the *File Menu*.

With the exception of the first *Hour Marker*, one or multiple items may be dragged & dropped into a different position in the playlist at any time. *Cut*, *Copy*, *Paste*, and *Delete* operations are also available.

Tracks may be inserted by dragging audio files from a Windows folder onto the *Playlist Viewer*. Pasting files copied from a windows folder is also available. By default, tracks are inserted as *General Tracks* . Hold the Ctrl key down during the drop to insert as *General Spots* , or the Shift key to insert as a *Voice Track* or *Song Intro* .

M3U and PLS playlist files containing audio files or a URL to a stream, web file, or FTP file may also be inserted or dragged into the *Playlist Viewer*. Each audio file within the playlist file will be loaded individually. M3U and PLS playlists may also be nested within other playlists.

Note: The track information stored in the playlist, such as artist, title, cue and segue times, can be overridden by values in the SPL file tags stored within each audio file. See [Never Read File Tags](#) in the Advanced options.

File Types

Important: Windows and other anti-virus software can slow down the loading of audio files and decoder DLL files, which may cause delays or engine timeout errors between songs on slower computers. We recommend adding the audio file types you use such as ".mp3" and any other types to the file type exclusions list in your anti-virus software. In our experience, audio files cannot contain a virus so this is quite safe. Alternatively, add the main folder containing all your audio files to the folder exclusion list.

Also, we recommend the **Engine** folder is excluded from real-time protection, usually "C:\Program Files (x86)\StationPlaylist\Engine" or similar.

Studio supports playing the following file formats:

Audio: MP2, MP3, MP4/M4A (AAC & ALAC), FLAC, WAV (PCM,MP2,MP3), APE, OGG, OPUS, WMA, SND, MUS, AIFF, CDA (Audio CD tracks)

Video: AVI, MPEG/MPG (MPEG-2), AVI, WMV, ASF

Other files: M3U, PLS, ASX, EXE, BAT, CMD.

Note: Video playback utilizes an old and outdated Windows MCI API and is not officially supported any longer in *Studio*.

Plain AAC files (.AAC file extension) without an MPEG-4 header are not currently supported.

For lossless file storage, we recommend FLAC for best performance. This provides full CD audio (WAV) sound quality but at a reduced file size of around 50 to 60% of the original WAV size. See <https://xiph.org/flac>.

For lossy file storage, we recommend Ogg Vorbis at quality 6 or 7. This format provides better sound quality at lower file sizes than MP3 and most other formats. See <https://vorbis.com>.

Most CD Rippers support both FLAC and Ogg Vorbis such as [EAC](#) and [CDex](#).

[Cue Sheets](#) are supported.

Internet streams, RSS feeds, and files on a web (HTTP/HTTPS) or FTP server may be played by inserting a .PLS or .M3U file containing the URL. RTP (Real Time Protocol) streams (PCM and MP3) are also supported. *StationPlaylist Creator* provides a tool to create a .PLS stream file for scheduling a URL in the playlist. To do this manually, create a text file with a .M3U extension and enter the URL of the stream into the file. Then insert the M3U file into the playlist.

Date/Time parameters are supported in a URL. This is useful if a filename changes based on the current date or time. All but the date/time parameters need to be enclosed in quotation marks. eg.
"https://server.com/file-"mm-dd".mp3"

At default settings, any metadata included in the stream will be read and displayed in Studio. See the [File Input options](#) for more details.

A duration dialog will appear when loading a manually created internet stream file if no duration was supplied. Enter the duration in seconds that the stream should play. The *Create Stream File* tool in *Creator* will include the duration to play the stream within the PLS file, along with a *Preload* time.

For a file on web or FTP server that requires a username and password, use the syntax
xxx://user:pass@server.com/file.mp3 where xxx is http, https, ftp, or ftps.

A username or password containing unsafe characters (eg. @:/%) need to be entered with a %hh format where hh is the hexadecimal number of the character.

FTP files are downloaded to the StationPlaylist\VoiceTracks folder as it is playing, however, web files are played directly without being stored in a folder.

RTP streams require a URL formatted as *rtp://spl@IPAddress:port*. The minimum syntax is *rtp://:port*
RTP Streams may also be received via the [Mic Input](#) and [Line Input](#) features.

spl@ is optional and will force Studio to only accept streams produced by StationPlaylist software and not from 3rd party RTP encoders. This is recommended for security purposes.

IPAddress is also optional and will only accept a stream from the specific IP.
Use [] to specify an IPV6 address.

When receiving an RTP stream via the internet, and the Studio computer is behind a router, [UPnP Port Forwarding](#) will need enabled in the *Communications* options and in the router, or a manual port forward configured in the router for the **UDP protocol**.

A reliable wired internet connection is required, and use of the MP3 codec for best results. Wifi can cause audio dropouts. PCM is usually only suitable for local area network streams.

Unlike HTTP streams, an RTP stream will not stop playing if the connection drops. To force a silent connection to drop, use [Silence Detection](#) in the *Input* options.

Two or more RTP streams can be sent from different locations to the same RTP Receiver. In this situation, if a stream is currently playing, the second stream will be ignored. Once the current stream stops, the receiver will start playing the second stream.

An internet stream file with a duration of 1 second has a special significance. The stream will play for 24 hours until one of the following occurs:

- The stream finishes at the source
- The time ticks over to a new hour, and the [Hour Marker](#) option is set to *Instant*
- An Instant *Timed Event* is executed.

Audio CD tracks (.cda) may be manually inserted in the *Playlist Viewer* from CD-ROM drives. The audio is digitally extracted from the CD, similar to a CD ripper, and the audio will pass through the DSP system for processing and/or streaming.

CD track titles will be read from the internet, if available, and stored in the local CDPlayer.ini file. This occurs when a track from the CD is played for the first time.

Note that CD tracks do not crossfade automatically, however, manually starting another track will provide the usual crossfade.

Executable (EXE, BAT, CMD) files may be executed from the *Playlist Viewer*. This may be used to run apps which produce audio, or to control external devices, etc. If a duration of 2 seconds or more is applied to the executable, Studio will execute the file and pause play until the program terminates, or until the duration of the executable expires. Studio will terminate the program if it is still running when the duration expires. The file duration may be used as a timeout for the situation where the program does not terminate correctly.

An executable with a duration of 0 will execute without Studio pausing, and the executable will not be terminated by *Studio*. A duration of 1 second will also not pause Studio, but the current track will fade out the when the executable starts.

Song Database

StationPlaylist does not use a database as such to store track information. When *Studio* is used with playlists created by *Creator*, track details including artist, title and intro times are obtained from the playlist.

For files that are inserted manually, or via standard M3U playlists, *Studio* will obtain track information from the file tag. If a supported file tag does not exist in a file, Studio uses the filename to obtain this information.

Studio supports reading the following file tag formats.

- RIFF LIST/INFO chunk and Cart Chunk (**WAV**)
- ID3 v2.3 or later, and ID3 v1 (**MP3**)
- MPEG-4 AAC and ALAC (**MP4, M4A**)
- Vorbis (**OGG, FLAC, OPUS**)
- Windows Media Audio (**WMA**)
- Monkey's Audio APE v2 (all file types)

With the exception of APE tags, the other tagging structures above are regarded as "foreign" tags in *StationPlaylist*.

StationPlaylist uses the APE v2 tag system for storing all information within all audio files. We call these **SPL tags**.

Once the information is read from a foreign file tag, the foreign tag will not be read again. The information will be stored in an SPL file tag within each file. This is mainly done due to speed issues reading and writing foreign file tags.

By default, the date and time a track is played is stored in the SPL file tag of the track. The last 18 times the track has been played is stored. This can be viewed for history or manual scheduling purposes.

If all your audio files are in the file formats above and have useful file tags, then you may skip the rest of this chapter.

Filename Structure:

If file formats other than those listed above are being used, or there are no file tags present in the file, *Studio* will attempt to use the filename to obtain the artist and title.

For filenames to be useful, they need to contain the artist & title in a consistent structure. The default filename format is **Artist - Title.ext**. Note there is a space either side of the dash (-).

There are two options used to define how the artist and title is extracted from the filename. The [Artist Delimiter](#) specifies what character is used between the artist and title (eg. " - "), and the [Track Filename Format](#) defines whether the artist or title appears first in the filename.

When *Studio* is installed in the same folder as *StationPlaylist Creator*, *Studio* will read the two settings above from *Creator's* options, and these options will be disabled in *Studio*. When *Creator* is not installed, these two options will be available on the [Advanced Options](#) tab, along with the *Playlist Filename Format*. These options allow the required filename format for the audio files to be customized.

If the filenames do contain the artist and title in a consistent structure, and supported file tags are present in the file but the information is not correct or reliable, then the option [Use file tags for Artist and Title](#) should be disabled on the *General Options* tab. This will force *Studio* to always use the filename and disregard the file tag for obtaining the artist and title. Other information such as the Album name will still be read from the file tag if it exists.

If both the file tag and the filename does not contain useful information, the artist & title of each audio file may be entered in the [Track Properties](#) dialog available from the [Track Tool](#) and the *Playlist Viewer*.

Manual [Intro and Segue Times](#) may be optionally specified in the filename if tags are not being utilized. The filename format is: **Artist - Title#xx~yy.ext**, where **xx** is the length in seconds of the song ramp or instrumental (non-vocal) beginning of a song, and **yy** is the segue or crossfade position starting from the end of the file.

eg. Cat Stevens - Peace Train#12.5~7.5.mp3. In this case, the *Intro* time is 12.5 seconds, and the *Segue* time is 7.5 seconds before the end of the song.

The *Segue* time must appear last in the filename if both *Intro* and *Segue* times are included.

Track Properties

Track Properties is used to view, edit, and enter track information.

The dialog is available from the [File menu](#), right-click popup menu, and the [Track Tool](#). It is also available in *StationPlaylist Creator* from the *Track List* and *Playlist Editor*.

The information is read and stored in the SPL file tag, not the ID3 or similar foreign tag formats. See [Song Database](#) for more information.

When multiple files are selected, checkboxes will appear beside most fields. All ticked fields will be saved to all selected files. The exception to this is the Restrictions tab where one checkbox controls all restriction settings.

Track Properties is arranged into 5 tabs.

Track Info Tab: Contains the basic song information such as artist, title, composer, album, record label, etc. All information is optional, although the artist and title is usually the minimum required for song identification purposes. Other information may be required for song royalty reporting purposes.

Most of this information is available for viewing in the [Playlist Viewer](#) by moving the mouse over the track icon. This may be useful information for DJ's to use while on-air.

Most of the fields are obvious except perhaps the following.

Album Artist: This field may be used to store the artist name of the album. This is only intended for compilation albums and should otherwise be left blank. eg. "Various Artists". This field is utilized by Studio's [Music Affiliate Integration](#), and the *Lookup* button below.

ISRC: International Standard Recording Code (optional).

CD Code: This can be a bar code or CD catalog number, etc, however this field should be left blank or contain an Apple Music track ID when using Studio's [Music Affiliate Integration](#) system. This system is used to automatically create and upload a web page to your website with album or track cover images and website/purchase links for the song that is currently playing, and previous songs played.

Lookup: This will perform a lookup at Apple Music for a track matching the *Album Artist* or *Song Artist* and *Album Title* or *Song Title*, and store it in the *CD Code* field, along with an album or track image URL in *URL 1*, and the website link in *URL 2* below. *Studio* does this automatically when [Music Affiliate Integration](#) is enabled. If an album or track is not found in Apple Music's database, "0000000000" is stored in the *CD Code*.

Affiliate Config: Loads a dialog to select settings used for the *Lookup* function above. This information is not stored with the track. These should match the settings on the [Music Affiliate Integration](#) options in Studio.

URL 1, URL 2 are used primarily for the [Now Playing](#) system to display an album or track cover image and website link respectively on your website. The [Music Affiliate Integration](#) will update these 2 fields automatically. Click the *View* buttons

beside the URL's to view the image or load the URL into the web browser.

Other may contain any other information you may wish to store. This field is available for output in the [Now Playing](#) system. A [Break Note Code](#) may be entered in this field and will be executed by Studio when the track starts playing.

Client is often used for storing an advertisers code or name. This field may be output in the [Spot Log](#) in *Studio*, and the *Spot Summary* in *StationPlaylist Creator*.

Categorization Tab: Contains additional track information that can be used in the [Insert Tracks](#) dialog in *Studio*, and *Separation Rules* and *Category Properties* in *StationPlaylist Creator*.

Year: This is usually the year the song was released. This may be used to search for tracks within a from/to range of years.

Genre: One or more genres may be entered, separated by commas, eg. Pop,Rock. Alternatively, previously entered genres may be selected from the drop-down list. Any new genre entered will be added to the drop-down list. Use the *Delete from list* button to remove the text from the drop-down list.

When multiple tracks are loaded, a genre may be added or removed from all tracks, preserving the information currently in each track, by entering a + or - before the genre. eg. +Instrumental. Any tracks that already have this genre will not have it added twice.

Mood: One or more moods may be entered. This works identically to *Genre* above.

Region: A region, country, and/or language may be entered for this track separated by commas. This works identically to *Genre* and *Mood* above.

Rating: Tracks may be given a rating from 1 to 10. 0 is reserved for not rated.

BPM: The beats per minute of the track. This may be used to search for tracks within a BMP range.

Tempo: A less precise selection of beat speed with 5 values from Slow to Fast.

Energy: 5 values from Low to High.

Gender: Male, Female, or Group.

Exclude from Requests: Check this box to prevent this track being available for online [requests](#).

Timing Tab: These settings may be used to control the playback duration and timing of the tracks in *Studio*. *Creator* also uses this information for determining an accurate accumulative duration for each hour, which determines the number of tracks scheduled.

Duration: The full duration of the track. This is usually calculated automatically and should only be manually adjusted if the calculation is incorrect for whatever reason. The more common cause of an incorrect duration is a variable bitrate (VBR) MP3 file which is missing a VBR header. Utilities exist to fix these MP3 files.

The duration is only used if the *Segue Time* has not been established. The actual play duration is calculated as *Segue - Cue*.

Intro Time: This may only be useful in the *Pro* edition of *Studio*, to specify the length in seconds of the song ramp. This is the length of time from the *Cue* point (below) to the start of the vocals in the song, which may be useful for a DJ during live shows, or during automated VT/Song overlapping. This value is normally set in the *Track Tool* while listening to the track. See the [Track Tool](#) chapter for more details.

Outro Time: This may only be useful in the *Pro* edition of *Studio*, which will utilize this value when an automated voice track/voice intro/voice outro is scheduled after a song. This is not required when recording voice tracks in [VT Recorder](#). This value is normally set in the [Track Tool](#) while listening to the track.

Hook Start: The position from the beginning of the song where the hook will start, often the start of the chorus. Hook timings are normally set in the [Track Tool](#) while listening to the track.

Hook Duration: The length of time to play from the *Hook Start* position, often between 3 and 6 seconds.

Fixed Crossfade: When unchecked (default), the Cue, Cue Overlap, and Segue times are [calculated automatically](#) by *Studio* based on volumes inside the file. When checked, these values may be entered manually for instances where the automatic calculations are not ideal. *Studio* will never scan these files.

The [Track Tool](#) may be used to set these values by either listening to the track or scanning tracks to automatically determine the best values for an ideal crossfade.

Set these values to zero for the entire track to play with no crossfading. This may be useful for dry spots that should not overlap other dry spots or voice tracks.

Cue Time: The position where *Studio* will start playing the track from. If a track has an *Intro Time* established, adjusting the Cue will also adjust the length of the *Intro Time*.

Cue Overlap: The previous track is allowed to overlap up to this position in the track during crossfading. The previous track will fade out during this period. A value of at least 2.5 seconds is recommended for songs to provide a small amount of overlap.

Segue Time: The position near the end of the track where the crossfade should begin with the next track. This is calculated from the beginning or *Cue* position of the track, not from the end of the track as often used by other broadcasting software.

By default *Studio* will calculate a *Cue* and *Segue Time* for each track when played for the first time. The [Track Tool](#) may also be used to set Segue positions manually or automatically. *StationPlaylist Creator* uses the *Cue* and *Segue Time* as the duration of the track when calculating the accumulative duration of each hour. When this information is not available, *Creator* could schedule too many or not enough tracks for each hour.

Segue DB: Displays the [Segue DB](#) setting that was used to calculate the *Segue Time* during an automatic scan in *Studio*.

Audio Gain: Adjusts the volume output from the *Studio* decoder by the selected db value. This is usually calculated automatically using the [Gain Scan](#) feature in the [Track Tool](#) for all the songs in the library. *Use ReplayGain* generally needs to be enabled in the [Input options](#), however, see *Force Gain* below.

Force Gain: When checked, forces *Studio* to utilize the *Audio Gain* value during playback, even when *Use ReplayGain* is disabled in the [Input options](#). The volume of the track will be adjusted by the selected db value. This may be useful for forcing a music bed to be reduced in volume, for example, when not using *ReplayGain* for songs.

Intro Link/Outro Link: These may contain the filenames of audio files which will be inserted in the playlist every time this track is selected by *Creator* or inserted manually in the *Playlist Editor* or *Studio*. It may be used for linking one track with another, such as classical movements together to play the entire works, or a song introduction to a song. Note that song introductions are usually scheduled via *Song Intro* & *Song Outro* spot groups in *Creator*.

The type of track the intro/outro will be inserted as is selected in the drop down box. Options are Default, Song, Spot, Voice Intro, Voice Outro. *Default* will choose the same track file type as the original file.

A Linked track may also have an *Intro* or *Outro Link*, therefore linking several tracks back to back. However, an *Intro Link* can only have another *Intro Link*, and similarly, an *Outro Link* can only have an *Outro Link*. A Maximum of 100 links in one chain is possible.

Note 1. *Schedule Restrictions* (below) set on a linked track can prevent the linked track being inserted.

Note 2. Only 1 file in the series of tracks should be included in a category to prevent multiple plays.

Note 3. Links will not work with *Song Intro* and *Song Outro* spot groups.

Note 4. Care should be taken to not cause a link loop where a file links back to a previous track in the same chain. *Creator* will detect this and cancel the creation.

Schedule Restrictions Tab: Restricts insertion of this track into the *Playlist Viewer* to specific dates, years, months, days of the month, days of the week, or times of the day. This affects manual drag & drop or copy & paste from a Windows folder, the [Insert Tracks](#) dialog, [Top Up](#) system, and [Song Requester](#). It also restricts scheduling by *StationPlaylist Creator*.

Start/Finish boxes: A range of dates, years, months, or days for when this track can be selected. Any of the values may be left blank. For example, November 26 to December 26 may be selected with no Year for Christmas songs.

The additional drop down box to the right of *Year* may be used for selecting a specific date from a calendar.

Delete file when expired: This is available when a complete date in the future is selected in the *Finish* box. ie. A Year, Month, and Day is selected. When checked, the file will be deleted from the hard drive when the current date exceeds the *Finish* date when Studio attempts to insert a track from a folder, such as during a manual insert, a [*Dir](#) break note, a [Cart](#), or the [Request Intros](#) feature. Tracks loaded from a playlist will be played and not deleted.

Days: Tick the checkboxes for the days of the week that the track can be inserted.

Hours: For a day ticked above, tick the checkboxes of the hours in the day the track can be selected.

Use the *Copy Monday to All* button to copy all Monday's checkbox settings to the other 6 days.

Use the *Reset On/Off* button to check/uncheck all *Hour* checkboxes.

Right-click the day of the week on the left to toggle the entire row on or off.

Click the hour of the day column number to toggle an entire column on or off.

History Tab: Displays the last 18 times the track was scheduled by *StationPlaylist Creator*, and the last 18 times the track was played in *Studio*.

Delete SPL Tag (button): This is used to remove the native SPL tag from the file. This does not remove any original foreign tags such as ID3. SPL tags may be removed from all files using the *Remove SPL File Tags* option in *StationPlaylist Creator*.

Read Foreign Tag (button): This is used re-read the foreign tag if one exists. eg. MP3 ID3v2.3 tags. This is done automatically when loading the track for the first time into *Creator* or *Studio*. This information is then stored in our own native SPL tags for speed purposes. Changes made to the foreign tags after the files have been loaded into *Creator* are ignored. Creator provides an option on the *Tools Menu* to *Reread All Foreign Tags* for all files in all *Categories* and *Spot Groups*.

Main Studio Window

Colored Bars

Near the top, these show the **Last Track**, **Playing Now**, and **Next Main Track** to play. This may be useful if the playlist viewer has been scrolled so the track details are not visible. At default settings, a "main" track is one that is a song, or a spot longer than 2 minutes. It will not show commercials or short spots. This may be useful for a DJ to easily determine the next song that is to play after a commercial break.

Beside the Playing Now and Next Main Track is a player number. This may be useful when Studio is set to output the players to separate sound devices for manual fader control with a mixer console.

The Playing Now bar will change to a darker green as the song progresses. While a track is playing within the [Intro](#) period of a song, the bar will start in a fuchsia (pink) color.

Custom Logo

A custom user image may be displayed under the *StationPlaylist* logo at the top right of the main *Studio* window, selected in the [General options](#).

Error Button

At default settings, a button with flashing text will appear on the screen in the location of the *Custom Logo* when a playlist error occurs, such as audio or playlist files not found. The error will be logged in the [Played Log](#) file. Click the button to open the *Played Log Viewer* and deactivate the error button. To ignore the error, right-click the button with a mouse. The [Error Button](#) can be disabled in the *General* options.

Buttons

The functions of all the buttons are described on the [Controls menu](#) or [View menu](#) and are generally obvious, except the following.

The *User* button activates the [Change User](#) function on the *View* menu. This button is replaced with the *Mic* button if enabled in the [Mic Input options](#).

Right-click the *Play* button to execute [Overlap Play](#) (Pro edition).

Right-click the *Stop* button to execute [Instant Stop](#), identical to the *Instant Stop* button on the right..

Right-click the *Mic* button to execute [Mic No Fade](#).

Cart Player (Studio Pro only)

The *Carts* button toggles the *Cart Player* visible to the right of the playlist viewer, and displays a button for each configured cart slot. 4 banks of carts are available called Main, Shift, Ctrl, and Alt. These relate to the keyboard shortcuts assigned to carts. Each bank may contain up to 24 slots. See [The Cart System](#) chapter for a more detailed description of the cart system.

Note: The monitor resolution needs to be at least 1360 pixels wide for the cart player window to be available.

The size of the cart player may be adjusted with a mouse by dragging the vertical divider between the playlist viewer and carts.

Move the mouse over a button to see a popup tooltip showing the filename of the next track that will play in the cart. This may be useful for carts containing multiple tracks which rotate.

The carts may also be configured and played via the [Cart Menus](#) and keyboard shortcuts.

Each bank of carts may be saved and loaded independently from the relevant *Cart Menu*.

Stop Cart: The current playing cart will fadeout over approximately 2 seconds. Activating the same cart that is currently playing will also stop the cart. If a [music bed cart](#) and normal cart are playing simultaneously, only the normal cart will stop. Select *Stop* again to stop the music bed cart.

Cart Edit (Toggle): Toggles the cart slots into edit or play mode. While in edit mode, all cart slots will become visible. Click or execute a cart slot and the [Cart Edit](#) window will appear to select the track or tracks to assign to the cart slot.

A cart slot may also be edited by right-clicking a cart button at any time.

Cart Insert (Toggle): When toggled on, all cart buttons or cart keys pressed will insert the track into the playlist viewer rather than play it in the cart player. Toggle off again to enable normal cart playback.

Clocks

Several times are displayed on the main window as follows.

Current Time: Displays the current time based on the PC clock. The center figure is the time remaining to the next hour. The temperature to the right is available when a temperature source has been selected in the [Time & Temperature Announcements](#) options. If a *Feels Like* temperature has been calculated, this will appear to the right of the temperature in a small font.

11:28:15 a.m.	31:45	28 mins past 11	25°C
---------------	-------	-----------------	------

Track Playing Counters:

Elapsed	Remaining
03:36	00:15

Elapsed Time: Displays the length of time the track has been playing. This does not include the [Cue Position](#) of the track.

Remaining Time: Displays the amount of time left before the [Segue Position](#), not the physical end of the track. In automation mode, the next track will start playing when the *Remaining Time* reaches 00:00, and the current song will be faded. In live assistance mode, if no other track is checked, the track will continue playing after the *Segue Position* until the end of the track is reached, unless a new track is manually started.

The *Remaining Time* will also display the amount of time left before the [Intro Time](#) position in the song, if the song has an *Intro Time*.

At default settings, the last 5 seconds of the *Remaining Time* will be colored red. This length may be configured by the [Flash Finishing Track](#) option on the *Event Times* tab.

While a track is playing within the Intro period of a song, the *Remaining Time* will be colored fushia (pink), along with the Now Playing progress bar.

The *Remaining Time* is also shown in the Windows Task Bar, and the progress through the track.

Playlist Times: Displays information about the playlist as a whole plus the selected track.

Track Starts in **01:45** | Track Starts **11:45:06** | Playlist Remain **17:24 +02:15** | Total for Hour **62:32**

Track Starts in: When a track is playing, this is the length of time remaining before the selected track will start, if play is not interrupted.

When 1 or more tracks are checked, or when 2 or more tracks are selected/highlighted, this data changes to **Selected Time** and shows the total duration of all checked or selected tracks.

Track Starts: When no track is playing, this field displays the scheduled time for the track; the same time appears in the Status Bar. When a track is playing, and the selected track is below the track playing in the playlist, this field displays the actual time the selected track will play based on the current time, the position of the track in the playlist, and the remaining time of the current track playing.

If the selected track is in a different hour to the track playing, or below an instant timed event, the time shown is correlated to the event time and not the track playing.

When a voice track or cart track is playing, this data changes to show **VT Elapsed** and **Cart Elapsed** times.

Playlist Remain: This is the total duration of the remaining tracks in the current hour, including the time left to play of the current track. This will show in red when this time is less than the time remaining in the hour. This indicates that the playlist does not contain enough tracks to fill the remaining hour.

When no track is playing, the time is calculated from the selected track to the end of the hour. If no track is selected, the time is calculated from the track that is scheduled to be playing at the current time - the shaded track or the track that will start when executing Automate.

The time to the right indicates whether the remaining playlist time is over or under +/- the time remaining in the hour. A negative time means that a track needs to be inserted or time filled some other way, otherwise the hours playlist will finish before the end of the hour.

Total for Hour: This is the total duration of all tracks in the selected hour. *Selected hour* refers to the tracks between the hour markers above and below the selected track.

Playlist Viewer

Much of the [Track Properties](#) data is displayed in separate columns including Artist, Title, Duration, Intro & Outro times, Category, and much more. Column widths may be altered by dragging the column header divider, and column headers may be dragged to change position if [Enable Column Movement](#) is enabled in the *Advanced options*. Columns cannot be added or removed. To not see a column, reduce the size so it is not visible or move it to the right.

The *Duration* column shows the length of time the track will be played, not necessarily the full length of the track. The duration is calculated as *Segue - Cue*.

While the mouse is hovered over the icon of a track, a tool tip showing other optional track information will appear. The information that will be displayed may be selected in the [Track Info & Logging Options](#). This information can be placed in a permanent window by clicking the track icon after hovering the mouse over it.

The playlist viewer shows different icons and default colors for different types of tracks as follows:

-  **General Track**
-  **General Spot**
-  **Jingle Spot**
-  **Break Note or Hour Marker**
-  **[hhmmss] Timed Event** (Timed Spot or Break Note)
 - **Expired or secondary Timed Event**
 - **Voice Track, Voice Intro or Voice Outro track**
-  **Commercial**
-  Track currently playing
-  Tracks that have been played
-  Track preloaded for playing next
 - **A missing track.**

The [Default Track Colors](#) shown above may be adjusted in the *General Options*. The [Background Color](#) may also be adjusted in the User options.

A *General Track* is the default track type, commonly a song scheduled in a *Category* by *Creator*.

A *General Spot* is often a station ID, jingle, talk program, etc, and include tracks scheduled in a "Normal" *Spot Group* by *Creator*.

A *Jingle Spot* is also usually a station ID but has a specific purpose where 2 or more jingles will not play back to back. This may occur accidentally when a jingle is scheduled near the end of an hour and at the top of the next hour. A Jingle can only be inserted manually via drag & drop and holding the Ctrl+Shift keys down during the drop. A *Jingle* is usually scheduled in a "Jingle" *Spot Group* in *Creator*.

A [Timed Event](#) is generally used to play a spot or [Break Note](#) at a specific time or close to a specific time while in automation mode. The track is moved to the next play position in the playlist before being played in automation mode. In live mode, a timed event will be highlighted in orange and checkbox automatically checked 1 minute before the event time, as a reminder to the DJ to play the timed track.

The expired or secondary *Timed Event* icon will be displayed beside timed events where the time has already passed, or where the timed event is below another timed event with the same scheduled time. Only the first timed event in a series is activated at the set time, and the others follow sequentially.

A *Break Note* is a non-audio file entry in the playlist. See the [Break Notes](#) chapter.

Voice Tracks, *Intro's* and *Outro's* are pre-recorded announcements normally created/scheduled by *StationPlaylist Creator*, or may be inserted manually into *Studio*. Voice Tracks/Intro's may overlap with the song ramp (instrumental beginning) of the following track. See the [Voice Track / Intro Overlap](#) option.

A *Voice Outro* following a song, like a *Voice Intro*, can overlap the end of a song. Studio will also attempt to always play the outro if the song above it has played, even at the end of the hour.

The track currently playing is highlighted in green for a *General Track*, as shown in the example above. Other track types will be highlighted in their respective colors while playing.

A missing track is identified when the playlist is loaded. This occurs when a file existed during playlist creation, but has subsequently been moved or deleted. This track will play if the file is reinstated, otherwise it will be skipped. If the missing track has a voice track or voice intro scheduled immediately above it, or outro immediately below it, the voice intro/outro will also be skipped.

The track which is scheduled to be playing, based on the current time, will be visible in the viewer in a [shaded color](#). It will only be visible when this track is not currently playing. This is used to highlight the scheduled position in the playlist as apposed to the actual position.

The *Playlist Viewer* will automatically scroll when each track is played to ensure the track playing is visible.

Multiple tracks in the playlist may be moved, copied, and deleted using drag & drop, or the functions cut, copy, paste, and delete on the [Edit](#) menu and right-click popup menu. Sequential tracks may be selected with the mouse by dragging the mouse from a position where there is no text. A drag and drop operation may be started by dragging the mouse from a position where text or a track icon exists.

Status Bars

There are 2 status bars which display the following information in separate panels. The window may need to be resized to see all panels.

Top Status Bar

- Play Status: *Playing* or *Stopped*
- Automation: *On* or *Off*
- Microphone: *On* or *Off*
- Line-In: *On* or *Off*
- [Record to file](#): *On* or *Off*
- [Cart Edit](#): *On* or *Off*
- [Hour Marker](#): *Ignore*, *Play Next*, or *Instant*.
- [Control Keys](#): *Enabled* or *Disabled*

Bottom Status Bar

- The length of time elapsed since *Studio* was last started.
- The scheduled time of the first selected track, or if no track is selected, the scheduled time of the track currently playing.
- The next date/time *Creator* will be loaded to create a new set of playlists, if *Creator* is installed and [Auto Playlist Creation](#) is enabled in the options.
- While a cart is playing, the filename and duration of the cart is displayed.
- The current number of internet listeners if streaming. This is configured on the [Listener Stats](#) options page.
- The playback [pitch/speed](#).
- "Modified" is displayed if the playlist has been modified since loaded or last saved.

Insert Tracks

Manual insertion of tracks may be disabled by enabling [Restricted File Access](#) on Page 2 of the *Advanced* options.

Tracks inserted in the *Playlist Viewer* must comply with any [Schedule Restrictions](#) and [Song & Artist Separation](#) rules.

Tracks may be inserted by dragging audio files from a Windows folder onto the *Playlist Viewer*. By default, tracks are inserted as *General Tracks / Songs* , however, hold down the following keys during the drop to insert as a different track type...

-  Ctrl: Normal Spot
-  Ctrl+Shift: Jingle
-  Shift: Voice Intro (Creator Pro)
-  Alt: Voice Outro (Creator Pro)
-  Ctrl+Win: Commercial

Copy/Paste from a Windows folder is also available for inserting files.

Inserting a track with a *Link Intro* or *Link Outro* set in [Track Properties](#) will cause the linked track(s) to also be inserted.

Tracks that have never been played before will be automatically scanned when inserted, to calculate *Cue* and *Seque* positions. See the *Crossfading* section in the [File Input](#) options for more details.

Insert Tracks Dialog

Use the *Insert* button on the main screen, or the [Insert Tracks](#) option on the *View menu* to toggle the *Insert Tracks* dialog from closed to open.

This window may remain open indefinitely if desired and the main window may still be used for controlling playback. The single key keyboard controls are disabled while the *Insert Tracks* window has the focus.

Tracks may be inserted manually from the hard drive using the *Insert Files* and *Add Files* buttons, or searched using various criteria.

A dialog will appear asking for the duration of a track if *Studio* is unable to calculate it for any reason.

The *Search* button and *Search Criteria* are only available when at least one [Search Folder](#) has been added to the *Folder Locations* page.

The *Rescan* button beside the [Search Folders](#) option should be used when files have been added or removed from the search folders. This will reload all the audio files. The rescan is also available by right-clicking anywhere on the *Insert Tracks* window. This may take several minutes depending on the number of files to load.

While the audio files are loading, a red message is displayed near the bottom of the *Insert Tracks* window explaining that not all files are available for searching.

Once the search files are loaded, searching on selected criteria will produce instant results.

Track Type: Select the type of track you wish to insert into the *Playlist Viewer*. The various types of tracks are described in the [Playlist Viewer](#) chapter.

Additional Parameters: Some of these parameters will be available depending on the type of track selected above. A *Timed Spot* and *Timed Break Note* requires a start *Minute* and *Second* and Event Type of *Play Next*, *Instant* or *Fixed*. See the [Timed Events](#) chapter for more information.

A special *Time* of 60 minutes past the hour is available for [Timed Events](#). These tracks will always be scheduled for the end of the hour. See the [Timed Events](#) option for more details.

A [Break Note](#) may have an optional *Duration* and *Note*.

Insert Files (button): An *Open File Dialog* will appear where one or more audio files may be selected to insert directly into the *Playlist Viewer*. If a track is selected in the *Playlist Viewer* during the insert, the inserted track(s) will be inserted above it, otherwise the inserted track(s) will be appended to the bottom. The *Insert Tracks* window will be closed automatically after the insert.

Add Files (button): An *Open File Dialog* will appear where one or more audio files may be selected. These are inserted into the *Track List* below and not directly into the *Playlist Viewer*.

Search Criteria: Enter a portion of one or more details into the *Search Criteria*. The search uses information entered into [Track Properties](#) for each track.

The *Search* button and *Search Criteria* are only available when a [Search Folder](#) has been established on the *Folder Locations* page.

The keyboard shortcut Alt+C will set the focus to the first field in the *Search Criteria*.

Separation & Restriction Rules: This checkbox has 3 possible settings.

- Checked: Search results will not include tracks that violate [Artist Separation](#) and [Schedule Restrictions](#). [Song Separation](#) is only tested at the time of insertion. Manually inserting a track that violate rules will display a warning message and ask for confirmation.
- Unchecked: Search results will include all tracks which may be inserted with no warnings.
- Partially checked (solid square): Search results will include tracks that violate rules, displayed in an italic font, and can still be inserted with no warning message.

Search (button): The *Track List* will be cleared, and all tracks in the [Search Folders](#) that match the *Search Criteria* will be

displayed in the *Track List* instantly. The *Enter* key will also execute this button while the focus is in the *Search Criteria*.

Track List: The track details of search results, and files selected using the *Add Files* button, are placed here. This area may be used as a temporary storage place for tracks before inserting them into the *Playlist Viewer*.

Much of the [Track Properties](#) data is displayed in separate columns. Columns may be moved using drag & drop, and the column sizes may be adjusted by dragging the column dividers. Click a column header to sort the tracks by that column. Click again to sort in reverse order. Columns cannot be added or removed. To not see a column, reduce the size so it is not visible or move it to the right.

The *Duration* column displays the actual play time, not the full duration of the track. The play time is calculated as *Segue - Cue*.

The *Ending* column is determined automatically when Studio plays a track for the first time, or when a *File Scan* is executed in the [Track Tool](#).

One or more tracks may be inserted from the *Track List* into the *Playlist Viewer* by highlighting the tracks and clicking the *Insert* button, or by dragging the tracks into the *Playlist Viewer*. The *Enter* key will also execute the *Insert* button while the focus is in the *Track List*.

The correct *Track Type* should be selected before inserting tracks into the *Playlist Viewer*, however, manually inserted tracks may be changed to a different type using the [Edit](#) and right-click popup menus in the main Studio window.

The keyboard shortcut Alt+R will set the focus to the Track List.

Some of the following buttons are also available on a **right-click popup menu**.

Clear (*button*): Removes all tracks from the *Track List*, clears all search criteria, and resets the *Track Type* to *General Track*.

Preview (*button*): Loads the selected track(s) into the [Preview Player](#), if enabled in the [General options](#).

Request (*button*): The highlighted tracks in the *Track List* will be added to the [Listener Requests](#) dialog. This may be useful for requests that are phoned or emailed in. The requested songs may be inserted into the *Playlist Viewer* manually, or automatically via a [break note code](#) scheduled in the playlist.

Close On Insert (*checkbox*): When checked, the *Insert Tracks* dialog will close when after a track insertion. Uncheck to insert multiple times.

Insert (*button*): The highlighted tracks in the *Track List* will be inserted in the *Playlist Viewer* on the main *Studio* screen. The *Enter* key will also execute this button while the focus is in the *Track List*.

Track Properties (*menu*): Load the selected track(s) into [Track Properties](#).

Select All (*menu*): Select all the tracks in the search results.

Copy (*menu*): Copy the selected tracks to the clipboard for pasting in Studio's Playlist, or Creator's *Playlist Editor* or *Track List*. Pasting in a text box, such as a web search engine, will paste the Artist - Title.

Rescan Search Folders (*menu*): Right-click anywhere on the Insert Tracks window. This option rescans the search folders for new or removed files. This may take some time when loading a large number of files.

Playing Tracks

The *Last Main Track*, *Playing Now*, and *Next Main Track* details at the top of the screen will be updated when each track starts playing, or when a track is moved within the playlist. The *Last Main Track* and *Next Main Track* will include all *general tracks* (eg. songs), but only *spots* and [break notes](#) will be included if they exceed the duration specified in the option [Include tracks other than songs over x seconds](#) on the *Now Playing* options page.

At default settings, *Studio* will attempt to play only tracks that appear under an *Hour Marker* that represents the current hour of the computer clock. An operator that is not concerned about timing should set the [Hour Marker](#) option to *Ignore*. This is generally only recommended for live shows.

Automation Mode

Once a playlist is loaded, or tracks have been [manually inserted](#), play may be started in automation mode by clicking *Automate*.

If no track is highlighted (selected), *Automate* will start play at the track scheduled to be playing at the current time. An exception to this is when automation mode is activated within the first 2 or 3 minutes of a new hour, play will start with the first track in the hours playlist to ensure mandatory station IDs at the top of the hour are played.

Automation mode is designed primarily for Studio to load playlist files every hour and play continuously. Studio will attempt to keep playing at all times. If the hours playlist comes to the end before the end of the hour on the clock, the [On Short Hours](#) option determines what will happen.

When using *StationPlaylist Creator* to schedule tracks, playlists should never be short of 60 minutes unless a track is deleted from the hard drive after being scheduled in the playlist. However, if this is occurring occasionally, use the *Over Schedule* options in *Creator's* Advanced options.

While in automation mode, Studio will control all fading and crossfading automatically based on predefined settings. Switching Automation mode off will result in the current track playing to the end and play stopping. A track may be interrupted at any time by clicking the *Stop* button. The volume will fade out over approximately 2 seconds and *Automate* mode will be turned off.

Studio may be used to play tracks randomly in automation mode without a playlist, if [On Short Hours](#) is set to *Insert Top Up Tracks*, and [Auto Load Playlists](#) is unchecked. Click *Automate* and Studio will load and play random audio files indefinitely from the [Top Up Folders](#).

Live Assistance Mode

When the Automate button is switched off, checkboxes will appear beside each track.

When play is stopped, play may be started by selecting/highlighting a track or ticking a checkbox beside a track and clicking the *Play* button.

By default, clicking *Play* again while a track is playing, will start playing the next track in the playlist regardless of any track that is selected or checked. This behaviour can be changed so that only the selected/checked track is played when clicking *Play*. See the options [Play function is Skip Next](#).

If [Double-click plays in Main Player](#) is selected in the Advanced options, double-clicking a track will start playing the selected track, even if a different track is checked in *Live* mode. This is equivalent to *Play Selected Track* on the [Controls menu](#) and right-click popup menu.

When multiple tracks are checked, all consecutively checked tracks will play from the topmost track. Play will stop at an unchecked track if the [Stop on Unchecked Tracks](#) option is enabled. Tracks may be checked while another track is currently playing. Do not check the track that is currently playing unless you wish to repeat the track.

Play will stop after the current track has finished playing if the next track is not ticked. At this time the next track will be automatically selected/highlighted. The checkbox behaviour can be changed with the [Stop on Unchecked Tracks](#) and [Auto-check Unchecked Track](#) on the *User* options page.

Right-clicking the *Play* button will execute either [Overlap Play](#) or [Overlap Next](#) functions in the *Controls* menu, depending on the option [Play function is Skip Next](#) in the *General* options. When this option is unchecked and a track is selected, this will execute *Overlap Play*. In all other situations, *Overlap Next* will be executed.

A track may be interrupted at any time by clicking the *Stop* button. The volume will fade out over approximately 2 seconds. When 2 tracks are playing using *Overlap Play* or *Overlap Next*, *Stop* will stop the first track. Execute *Stop* again to stop the 2nd track.

Single keyboard keys may be assigned to the standard control functions. See the [Keyboard Controls](#) options.

Studio can also be controlled via hardware devices (see [Communications](#)), and also via command-line switches using [Studio Monitor](#).

When not in *Manual Fading Mode* (below) selecting a track and clicking *Play* while a track is currently playing will provide an automatic short configurable length crossfade based on the two [Truncation](#) settings on the *Event Times* page.

Manual Fading Mode (in Live Assistance Mode)

At Studio's default settings, Studio will control all fading and crossfading automatically based on predefined settings. If you are using a hardware mixer / broadcast console and wish to manually control fading of the 2 main players, uncheck the [Use Mixer](#) checkbox, and on the *Main Player* tab, select 2 different sound devices for Device 1 and Device 2. Other players such as the Voice Track Player and the 2 Cart Players may also be set to independent sound devices.

In this mode, if a track is started while another one is playing, Studio will fade the previous track very slowly over a 30 second period, allowing the operator to determine the amount of initial fade. If the operator prefers no slow fade at all, use the *Overlap Play* or *Overlap Next* functions on the [Controls menu](#).

Studio will still apply automatic fade in the following situations.

- In *Automation* mode.
- When 2 consecutive tracks are checked and the next track starts automatically.
- When the next track is shorter than the remaining time of the current track.
- Play is stopped using the Stop button.

When 2 tracks are playing in this situation, the *Stop* button will stop the first track (with a quick fade) and leave the new track playing.

Cue Sheets

Studio can read a Cue Sheet to obtain artist, title, and other information when playing one large audio file containing several songs, such as a pre-recorded live show. See [https://en.wikipedia.org/wiki/Cue_sheet_\(computing\)](https://en.wikipedia.org/wiki/Cue_sheet_(computing)).

The cue sheet file must have the same filename as the audio file with a .cue file extension, and located in the same folder. The [Now Playing](#) system and optionally [played logs](#) will be updated as each song starts, as if playing individual song files, thereby adhering to ASCAP and similar music licensing and reporting requirements.

Apart from the standard Cue Sheet track items PERFORMER, TITLE, and ISRC, Studio supports these non-standard items: REM ALBUM, REM DATE (for the Year only), REM COMPOSER, REM LABEL, REM URL, and REM URL2. eg. REM DATE "2016".

Any of these may be added to the top of the Cue Sheet before the first track, or within each track. When at the top, the information will be used for all tracks that don't have their own information specified.

PERFORMER and TITLE at the top of the cue sheet do not need a REM and will be translated to Album Artist and Album Title. TITLE is equivalent to REM ALBUM when at the top of the cue sheet and are interchangeable.

Studio can create a cue sheet. See the Output options / [Record](#) chapter.

Cue Sheets with ANSI or UTF-8 encoded characters are supported.

The Cart System

One or more tracks may be loaded into cart slots for instant play at any time. These are usually jingles, sound effects, music beds, etc. 4 banks of carts are available called Main, Shift, Ctrl, and Alt. These relate to the keyboard shortcuts assigned to the carts. A total of 48 carts may be defined in *Studio Standard*, 12 in each bank. *Studio Pro* supports a total of 96, 24 in each bank.

Carts may be set up for each individual user/DJ, and change as each [user logs in](#). The Pro edition of Studio supports all 4 banks of carts being customized per user. The Standard edition supports only the *Main Carts* customized per user. The other 3 cart banks are fixed for all users.

In the Pro edition of Studio, each bank of carts may be saved to a file, and loaded at any time. Each bank can be set as *Private* or *Public*. A *Private* bank can be loaded and used by any user, but cannot be modified except by the original user who created it. A *Public* bank may be loaded by any user and modified by any user. The ability to set a bank as *Private* was

mostly designed to prevent accidental changes to another users cart bank that you may be sharing. Multiple users may share the same cart bank, for commonly used station jingles, for example.

A cart may be played simultaneously with any other playlist track, and by default, the playlist track playing will be reduced in volume while the cart is playing. This fade is optional for each cart based on the *Fade Main Player* setting below. The amount of fade is configurable in the *Cart Player* tab in the [Output Options](#).

There are 2 types of carts, standard and [Music Bed](#) carts. Music Bed carts are available only in the Pro edition of Studio. The 2 types will play out separate players which can be set to 2 separate sound devices if required. A standard cart and a music bed cart may be played simultaneously. A standard cart played after a music bed has been started will fade the music bed cart.

By default, executing a standard cart while another standard cart is playing, will fade out the current cart at a speed based on the [Truncation](#) options before playing the new cart. This can be changed to truncate the current cart and play the new cart instantly by enabling [Start Carts Instantly](#) in the General options.

Using the *Stop Cart* option will fade out both the standard and/or music bed cart over approximately 2 seconds.

A cart slot may be played at any time using the [Cart Menus](#) or keyboard shortcuts displayed on the menus.

In the Pro edition of Studio, all cart slots are also available as push buttons on the main [Studio window](#).

Cart tracks may also be inserted in the *Playlist Viewer* or activated via [break note codes](#) scheduled in the playlist.

Cart Configuration

Carts are configured and edited using the *Edit Cart* menu item, or button in the [Cart Player](#). This toggles the cart menu items/buttons between edit mode and play mode. While in edit mode, all cart slots will become visible. Click or execute a cart slot and the *Cart Properties* window will appear to select the track or tracks to assign to the cart slot. Here are the available options and settings.

Cart Name: This name will appear on the menu items and cart buttons.

Randomize: If multiple tracks have been added to the cart slot, the list of tracks will be reshuffled into a different order every time the last track is played.

Music Bed (Studio Pro): When unchecked, the cart is regarded as a standard cart suitable for generic voice tracks, sound effects, jingles, etc. These carts will play out Device 1 in the Output options / Cart Player tab if [Use Mixer](#) is unchecked. When checked, the cart is regarded as a music bed and will play out Device 2 if [Use Mixer](#) is unchecked.

A *Normal* and *Music Bed* cart may be played simultaneously. In this case the *Music Bed* cart volume will be reduced while the normal cart plays.

Fade Main Player: When enabled, playing a cart will reduce the main player volume to that specified in the *Cart Player* tab in the [Output Options](#).

Commercial: When checked, a track played or inserted into the playlist from this cart slot will be played and logged as a commercial for billing purposes.

Load Files from Folder: When checked, the files are loaded from the specified *Folder*, rather than inserting the files manually. Use the [...] button to select a folder. This may be useful if the files need to change regularly.

The folder is rescanned for new and removed tracks once the last track is played, or when all tracks have been replaced.

When *Randomize* is unchecked, all tracks loaded from a folder will play in alphabetical order by filename.

Play Mode: When set to *Individual Tracks*, each execution of the cart slot will play one track. If multiple tracks exist, the play position will be set to the next track.

When set to *All Tracks*, all the tracks in the cart slot will be played consecutively. Each track will be played completely to the end before the next one starts, including any silence at the start or end of each track.

Button Color (*Studio Pro*): Click to change the color this button will appear in the [Cart Player](#). The text color of each button will be either black or white, determined automatically based on the button color.

Add Files: This function opens a dialog to select the individual file or files to play from this cart slot. The function is not available when *Load Files from Folder* is checked. Drag & drop or copy/paste from a Windows folder is another method to insert files.

Set Position: Sets the current position in the list of tracks. The bold track shows the current position, and this track will play next when the cart slot is executed. Also available on a right-click menu. This function is not available when *Randomize* is checked.

Move Up/Down: These buttons move the selected track up or down into the desired order to play. This function is not available when the options *Load Files from Folder* or *Randomize* are checked.

Remove: Remove the selected track from the cart slot. Also available on a right-click menu. This function is not available when *Load Files from Folder* is checked.

Remove All: Removes all the tracks from the cart slot. An empty cart will not appear in the [Cart Menus](#) or [Cart Player](#). This function is not available when *Load Files from Folder* is checked.

Add BN: Add a [break note code](#) to the cart slot. This may be useful for playing a time or temperature announcement, or switching a Studio option on or off, for example.

Auto Name Cart: Modifies the *Cart Name* based on the folder name when *Load files from folder* is checked, otherwise the filename of the first file.

OK & Finish Edit: Saves the changes and toggles off *Cart Edit* mode. Select this function if you are not planning to edit any other carts at this time.

OK: Saves the changes and leaves the cart items in edit mode.

Cancel: Aborts any changes made to the cart slot.

Track Properties: Right-click menu only. Load the [Track Properties](#) of the selected track.

Break Notes

These are usually non-audio items in the playlist. Break notes may be used for the following:

1. A simple reminder for the DJ
2. Ad advertisement to be read by the DJ
3. Pause the playlist for a specific time period.
4. Switch to a live event via the soundcard line input port for a specific time.
5. Control some of Studio's options (see [Break Note Codes](#)).
6. Play a cart track or other tracks in a folder (see [Break Note Codes](#)).

As with *Spots*, *Break Notes* may also be a timed event to execute at a specific time. These are known as Timed Break Notes.

Break notes are usually scheduled by *StationPlaylist Creator* inside a rotation. See the *Rotation Properties* chapter in *Creator's* help documentation for more details.

A Break note may have a zero or non-zero duration. A zero duration would be suitable for options 1, 2, and 5 above. A non-zero duration would be required for options 3 and 4.

Break Notes which play an audio file may also have a duration, but Studio ignores this duration and uses the actual duration of the track inserted.

The duration of a break note may be specified in an external playlist by inserting a duration in seconds followed by a colon, and an optional description.

eg. **180: News**

This will execute the break note for 3 minutes before proceeding to the next item in the playlist.

StationPlaylist Creator provides a special dialog supporting Studio's Break Notes, and the above duration syntax does not need to be entered manually.

During the period of a break note, the line input recording device may be optionally turned on, depending on the [Break Note Line-In Control](#) option on the *Input tab > Line Input tab*..

When using the *Break Note Line-In Control*, [Silence Detection](#) can be used to terminate the break note prematurely before the duration is reached.

Break notes are usually created with a text description which appears in the *Title* column of the *Playlist Viewer*.

The description is also available for viewing in a permanent tool tip popup window by placing the mouse over the icon in the *Playlist Viewer*. This is useful for reading a lengthy message or advertisement.

Break Note Codes

Special codes may be entered into the description of *Break Notes* to control some aspects of *Studio* from within a playlist, and from a [cart](#). Codes start with an asterisk (*) and are followed by an option code and often an option value. When a code is included, an optional text description may be entered after the code separated by another asterix and a space. This will result in only the text showing in the Title column in *Studio* rather than the entire code. See [examples](#) below.

If both a duration and break note code is required, the duration must be specified prior to the break note code. Any number of break note codes may be specified in the same break note description. See this [example](#) below.

StationPlaylist Creator provides a special dialog to schedule break note codes within rotations without having to know the actual codes and syntax. The codes are listed here for 3rd party schedulers and manual entry.

Codes may also be entered in the *Other* field in [Track Properties](#).

Many of the *Break Note Codes* scheduled as *Instant Timed Events* may be executed without truncating the current playing track. To enable this function, enter an exclamation mark ! after the asterisk. This is synonymous to ticking the **Concurrent Timed Event** checkbox in the Creator Break Note dialog. See this [example](#) below.

In automation mode, break note codes applied to a zero duration *Break Note* are executed when the *Break Note* is pre-loaded. By default, this is 2 seconds before the previous track finishes. However, a break note code applied to a *Break Note* with a non-zero duration will be executed when the break note starts "playing".

Zero duration break note codes will never be skipped in a playlist. When Studio jumps to the next hours playlist at the turn of the hour, any remaining unexecuted break note codes will be executed at that time.

Some break notes that insert files support [date/time replaceable parameters](#) and **wildcards** ? and *. Date/time parameters utilize the *Scheduled Time* of the track to determine the filename. Non-date/time parameters must be enclosed in **"double quotation marks"**. Note these cannot be slanted quotation marks such as "dd" inserted by some word processing and email apps.

eg. *play1="c:\news\News-"dd-hh".mp3"

The *Scheduled Time* above can be modified by adding or subtracting between 1 and 9 days and/or hours from the date or time using the syntax [(-+)n(dh)]

eg 1. *Play1=dd-hh[+1d]".mp3" will add 1 day to the *Scheduled Time* to determine the filename.

eg 2. *Play1=dd-hh[-1d][+2h]".mp3" will subtract 1 day and add 2 hours from the *Scheduled Time*.

Available Break Note Codes

Time Markers:

***TM** will insert a *Time Marker*, which should be set as a timed event, either *Instant* or *Play Next*. A *Time Marker* provides for the situation where the current play position must be moved down the playlist to a new position at a specified time. Tracks in between the current position and the *Time Marker* will be skipped and not played, similar to an *Hour Marker*.

If the current position in the playlist is below the *Time Marker* when the event time occurs, the *Time Marker* will be ignored. If it is important the tracks following the *Time Marker* must start precisely at this time, an extra track or two should be scheduled before each *Time Marker*.

This feature may be used to schedule in 30 minute blocks of time, for example, rather than a whole hour. It also makes it possible to follow a stop set or commercial break with specific programming such as specific categories of music. In some cases, this feature may replace the need for multiple timed spots in a row.

Time Markers are usually scheduled in StationPlaylist Creator's *Rotation Properties*.

Unpredictable results could occur if a Time Marker is scheduled close to other timed events.

[Automation Mode](#) may be switched on and off using the following codes:

***A0** = Automation mode off (switch to Live Assist).

***A1** = Automation mode on.

When in live assistance mode, ***A0** break note entries cannot be checked (ticked) in the *Playlist Viewer*. This may be useful when used in combination with the [Tick all tracks when playlist loaded](#) option in the *General Options*, or the [Tick All/Remaining Tracks](#) *Edit Menu* option, to pre-plan when announcements should be spoken by a live DJ.

***A1** will switch automation mode on automatically when it is scheduled as a [Fixed Timed Event](#), provided there are no previous unplayed timed events.

With the exception of a *Timed Event*, a ***A1** break note entry will automatically be checked (ticked) when loaded into Studio in live assistance mode. This may be used to remind the DJ to start automation mode when he/she finishes his live shift by simply clicking the *Play* button.

The [Hour Markers](#) option may be set temporarily or permanently using the following codes:

Temporary

***H0** Ignore

***H1** Play Next

***H2** Instant

Permanent

***H=0** Ignore

***H=1** Play Next

***H=2** Instant

A *Temporary* change will revert the option back to it's original setting when play is stopped.

A *Permanent* change will stay set permanently, even when Studio is closed down. This may be useful when preparing for a DJ to do a live show.

Switching to Ignore using a break note code, Hour Markers will still be inserted but ignored, and Timed Events will still function. This contrasts with what occurs when the option is set manually in the *Advanced options*.

The [On Short Hours](#) option may be controlled by the following codes:

***Short=0** (Repeat the last hour)

***Short=1** (Insert Top Up Tracks).

***Short=2** (Start the next hour early).

***Short=3** (Start early based on next hour).

Some settings are not valid depending on the *Hour Markers* option above. See the [Advanced options](#) chapter.

The [Ignore Timed Events](#) checkbox option may be controlled by the following codes:

***I0** (disable)

***I1** (enable)

The [Time Checking](#) checkbox may be controlled by the following codes:

***K0** (disable)

***K1** (enable)

The [Voice Track/Intro Overlapping](#) checkbox may be controlled by the following codes:

***P0** (disable)

***P1** (enable)

The [Short Intro Delay](#) checkbox may be controlled by the following codes:

***D0** (disable)

***D1** (enable)

[Truncation Delay](#) in the *Event Times* options may be modified as follows.

***Q=xxxx** (where xxxx = milliseconds)

eg. ***Q=9000** will set the option to 9000 milliseconds. ***Q** on it's own will revert the option to it's original value. The setting is temporary and will reset to the original value if the options dialog is loaded, or Studio is restarted.

This code may be used to fade a song at the top of the hour for a longer period than usual, before an instant event occurs.

[Crossfade Songs](#) checkbox in the *File Input options* may be modified as follows.

***F0** (disable) ***F1** (enable)

This may be useful if crossfading should not occur during periods of the day, such when classical music is scheduled.

The [Break Note Line-in Control](#) checkbox in the *Line Input* options may be enabled and disabled as follows.

***L0** (disable)

***L1** (enable)

Use this code when some Break Notes need to take audio from the Line Input, and when some don't. Apply a duration to the break note to open the line input for the specified duration, or until an instant event terminates it.

The [Break Note Overlap](#) options in the *Line Input* options may be manipulated as follows.

***BIx** (Intro Time, letter I, not number 1)

***BOx.** (Outro Time, letter O, not number 0)

Both the *Intro* and *Outro time* is specified in seconds from 0 to 9.

eg. 180:***BI4** will start a 3 minute Line Input feed with 4 seconds of the previous track still to play.

Line Input Switching:

***N** may be used to switch the line-in button on and off within a playlist.

Note that this code is used for special purposes only and is not normally used during automation for opening the line input. For automation purposes, a break note with a duration is normally used in conjunction with the [Break Note Line-In Control](#) to open the line input for a specific period. See the [Break Notes](#) chapter for details.
eg. *N1 (switch on), *N0 (switch off).

***N0=x** is a special *Studio Pro* syntax to select which of the 4 sound device selections to use when the line input is opened. *N1=x may also be used to switch device and then open the line input. This may be used with a 0 duration, or with a duration to activate [Break Note Line-In Control](#).
eg. *N0=2 will switch Studio to use the *Device 2* configuration.

***OverlapFade** may be used with a Line Input feed. When used, a Line Input feed will fade the preceding track to the level set in the Output options / [Voice Track Player](#) tab but continue playing the track. This enables a music bed to play under the feed.

***NoFade** may be used with a Line Input feed. When used, a Line Input feed will not fade the preceding track at all, enabling a low volume music bed to play under the feed.

Insert all tracks in a folder, or one track based on position:

All tracks in a folder may be inserted into Studio's playlist viewer at the time the break note is executed. This may be useful for playing 1 or more files which regularly change in name, such as downloaded news files. Tracks are inserted in alphabetical order.

***Dir{x}=folder path** where {x} is the type of track as follows.
0=Songs (default), 1=Spots, 2=Jingles, 5=Commercials, 7=Voice Intros, 8=Voice Outros.
eg. *Dir1=c:\audio\news

One track in a folder may be inserted based on the alphabetical position of the track in the folder.

***Dir{x}[n]=folder path** where {x} is the type of track and n is the position number starting at 1 with a maximum of 99.
eg. *Dir2[12]=c:\files will insert the 12th track in the folder as a spot.

The last track alphabetically in the folder may also be inserted by omitting the number in the square brackets.
eg. *Dir5[]=c:\ads will insert the last track in the folder as a commercial.

Note: Types 2 and higher require the Pro edition of Studio.

Note: [Track Insert Separation](#) and [Schedule Restrictions](#) are taken into account. Song & artist separation only applies to songs/general tracks, ie. *Dir0 codes.

Note: Executing this break note from a [Script](#) or [Cart](#) will insert the track(s) immediately after the current track playing, and will start them playing instantly.

The break note supports date/time replaceable parameters and '?' wildcards as described near the top of this chapter.

Insert all tracks in a folder randomized:

Identical to *Dir above but the tracks will be randomized before being inserted in the playlist viewer.

***Dirr{x}=folder path**

The break note supports date/time replaceable parameters and '?' wildcards as described near the top of this chapter.

***Play** will replace the break note with an audio file, or audio files from a M3U playlist, and play them. This enables a specific track or set of tracks to be placed directly into a rotation in Creator without creating a spot group. The break note supports date/time replaceable parameters and '?' wildcards as described near the top of this chapter.

After ***Play** is a number that represents the type of track. 0=Song, 1=Spot, 2=Jingle, 5=Commercial, 7=Voice Intro, 8=Voice Outro.

eg 1. ***play1**="c:\news\News-"dd-hh".mp3"
 eg 2. ***Play5**=c:\Ads\Tue0601.m3u

Note: Executing this break note with a M3U playlist from a [Script](#) or [Cart](#) will insert the tracks immediately after the current track playing, and will start them playing instantly.

***Col** modifies the [Playlist Background Color](#) option. The color is entered in hexadecimal numbers for RGB. eg.
***Col**=C9E2FA is a pale blue.

***Close** closes and terminates Studio. A duration of 1 or 2 seconds on the break note is recommended to let the current track finish.

Load a still image in the [Video Window](#). BMP, GIF, and JPG images are supported. The *Video Window* will appear if it is not already visible.

***Image=filename**

eg. ***image**=c:\images\elephant.jpg

The break note supports date/time replaceable parameters and '?' wildcards as described near the top of this chapter.

The [Now Playing Template](#) may be altered from a playlist using the ***Template** code. For example...

***Template=Sample.xml**

The file specified must exist in the Studio\Templates folder on the hard drive.

***Metadata=any text** will force a change to the Song Title (%t) parameter in the [Now Playing](#) system while spots are playing. The change will take effect until the next song or lengthy spot plays.
 eg. ***Metadata**=Be in to win \$1000. See our website.

Note: If a [Duration](#) has been set in the Now Playing options, the metadata text set here will be delayed until after the song metadata has appeared for the duration period. ie. When a song starts, the song metadata will appear for the duration period and then be replaced with the alternative metadata for the remaining time. This will continue indefinitely with every song until a blank ***Metadata=** is executed to clear the alternative text.

The Song Artist (%a), Song Title (%t), and Album Title (%T) may be filled using a dash-space-dash delimiter (-). eg.
***Metadata**=Artist - Title - Album.

All non-track Now Playing template parameters may be included in the text, including %u(user), %l(listeners), %p (temperature), %d(date), %h(time).

The metadata may be read from a text file with a .txt file extension, eg.

***Metadata=filename.txt**

***Metadata=Off/On.** With this alternate syntax, it is possible to disable the *Now Playing* system from all automated updates. While disabled, only ***Metadata** break notes can update the Now Playing, and songs playing will not.

Note: All metadata output will be disabled when [Test Mode](#) is enabled in the *Controls menu*.

***TestMode** may be used to toggle [Test Mode](#) on or off in the *Controls menu*.
Use *TestMode=On or *TestMode=Off.

Track Info Popup File: Text from a file may be displayed via the [Track Info Popup](#) feature when hovering the mouse over the break note track icon. for example...

***InfoFile=filename.txt**

Without a filename specified, any text included in the break note after the "=" will be displayed in the popup window.

DSP Toggling:

***DSP** may be used to toggle a DSP on or off, on the Mixer tab of the [Output Options](#). The syntax is *DSPnn=0 or 1, where nn is a 1 or 2 digit number representing the position of the DSP in the list.
eg. *DSP5=1 will enable the 5th DSP in the Mixer list.

[Scripts](#) may be executed.

eg. ***Script=abcd** will execute the script abcd.scp stored in the Studio\Scripts folder.

Player Volumes on the [Output options](#) player tabs may be adjusted using the following code:

***PlayerVoln=xxx**, where *n* represents the individual players as follows:

1 = Main Player, 2 = Voice Track Player, 3/4 = Cart Player, 5 = Microphone, 6 = Line Output, 7 = Mixer, 8 = Monitor Output.
xxx is any number from 0 to 100. 0 = silent, 100 = maximum volume.

Player 7 (Mixer) may be used as a master volume when the [Use Mixer](#) option is checked.

The Master Volume of any soundcard may be adjusted to any volume using the following code:

***Vn=xxx**, where *n* represents the soundcard device number. **0** is the first soundcard, **1** is the second, etc.

xxx is any number from 0 through 100. 0 = silent, 100 = maximum volume.

eg. *V0=50 will change the volume of the first soundcard to 50% (-6db).

Note: This function may not work on some Windows 7 and Vista computers. The *PlayerVol code above is the preferred method to adjust the volume.

Cart Slots may be inserted into the playlist and played. Unlike ***O** below, the cart track is played sequentially with the other tracks in the playlist.

***CMxx** (Main Cart)

***CSxx** (Shift Cart)

***CCxx** (Ctrl Cart)

***CAxx** (Alt Cart)

where xx = cart slot number from 01 to 24.

eg. *CM12 will use the file associated with Main Cart 12 (F12). *Cart Break Notes* can act just like voice tracks when the [Play Break Note Cart as VT's](#) option is enabled.

Individual tracks are selected in order from top to bottom in the cart list. The current position in the order may be set on a specific cart slot by adding an '=' and position number after the code.

eg. *CM01=0 will reset the current position of Main Cart 1 to the beginning. The next activation of the cart will start with the first track.

Overlap Cart Slots are very similar to the ***C** code above except the cart is played simultaneously with the next track, equivalent to the cart slot being played manually.

***OMxx** (Main Cart)

***OSxx** (Shift Cart)

***OCxx** (Ctrl Cart)

***OAxx** (Alt Cart)

***O0** (zero) will stop a cart playing.

where xx = cart slot number from 01 to 24. A duration applied to the break note will delay the following track from starting for this length of time.

eg. 2:*OA04 will play the file associated with Alt Cart 4 (Alt+F4). Studio will then wait for 2 seconds before playing the next track in the playlist, while the cart slot is still playing. As with manual carts, the volume of the *Main Player* will be reduced while the cart plays.

[Play Break Note Carts as VT's](#) checkbox in the *General options* may be modified as follows.

***CartVT=0** (disable)

***CartVT=1** (enable)

[Play Commercials as VT's](#) checkbox in the *General options* may be modified as follows.

***CommVT=0** (disable)

***CommVT=1** (enable)

Time-of-day Announcements (*Pro edition*):

***Time** Replaces this break note with a filename matching the current time. See the [Time & Temperature](#) chapter.

Temperature Announcements (*Pro edition*):

***Temp** Replaces this break note with a filename matching the current temperature. See the [Time & Temperature](#) chapter.

Feels Like Temperature Announcements (*Pro edition*):

***Feel** Replaces this break note with a filename matching the current "feels like" temperature. See the [Time & Temperature](#) chapter.

Humidity Announcements (*Pro edition*):

***Humid** Replaces this break note with a filename matching the current humidity percentage. See the [Time & Temperature](#) chapter.

***SkipNoTemp** will skip playing the next track in the playlist if no temperature is available. This will be useful if an introduction for the temperature appears next in the playlist followed by a ***Temp** break note code.

***SkipNoFeel** will skip playing the next track in the playlist if no "feels like" temperature will be played. This will be useful if an introduction for the temperature appears next in the playlist followed by a *Feel break note code.

Change Weather Station ID:

***Temp=StationID.** The *Station ID* option in the [Time & Temperature](#) options may be changed to a different ID. This may be useful in a radio network situation where a temperature from different cities may be announced every hour, for example. This syntax does not activate a temperature announcement. It only changes the ID ready for the next ***Temp** break note. There will need to be a few seconds between changing the ID and using a *Temp break note, to allow time for the temperature to be read via the internet.

Change Search Folder:

***Search=C:\Path\Folder** will change the [Search Folder](#) in the *Folder Locations* options. This may be useful when using the [Song Requester](#) feature while a specific genre show is playing. Multiple folders may be entered separated with a semicolon ";". *Search= without a path will empty the folder list.

Rescan Search Folders:

***Search=rescan** will initiate a rescan of the Search Folders.

Change Top Up Folder:

***T=C:\Path\Folder** will change the [Top Up Folder](#) in the *Folder Locations* options. This enables a specific genre of Top Up tracks to be selected while a specific genre show is playing. Multiple paths may be entered separated with a semicolon ";".

Rescan Top Up Folders:

***T=rescan** will initiate a rescan of the top up folders.

Insert Top Up:

***T** This break note will be replaced with a random [Top Up Track](#).

User Name *(Pro edition):*

The *Studio User Name* may be changed within a playlist using the following code:

***User=User Name** eg. *User=Wolfman Jack

This will load any Carts previously configured for the user so user specific jingles may be played using *C or *O *Cart Slot* codes mentioned above.

Changing users within the playlist can also be useful when the %u parameter is used in the [Now Playing](#) routine. See also the [Change User](#) option on the *View menu*.

If the *User Name* is empty (eg. *User=), Studio will display the [Change User](#) dialog on the screen for the DJ to select. The *User Name* is limited to 45 characters.

Note: This break note is ignored if [User is Windows Logon name](#) is enabled in the *Advanced* options.

The [Replace Blank Album](#) *Now Playing* option may be altered within a playlist. It may be useful to remove the Album name or change it for specific shows.

***npba=text** eg. *npba=Single

The [Voice Track Output](#) *Now Playing* option may be altered within a playlist.

***npvt=n** , where n is 0, 1 or 2 to correspond with the 3 settings.
eg. *npvt=1 will change the option to *VT Title*.

[Record to File](#) may be switched on and off. Optionally with a duration, and a new [File Format](#) may also be specified.

***R0** (disable)

***R1** (enable)

***R1[xxx]** (where xxx is the duration to record in seconds up to 99999)

***R0=filename.wav**

***R1=yymmdd".ogg"**

Using the **R1=filename* code, the *File Format* is changed just before recording starts. The **R0=filename* code will change the *File Format* without switching recording on.

The filename may contain a path where the file will be created. In this case the path will update the [Record Folder](#) option.

This break note scheduled as an Instant Concurrent timed event may be used to record audio entering the line input of the soundcard, such as a satellite program, and play it back later. Studio supports playing timeshifted audio currently being recorded in [SPL Recorder](#).

Note 1: When date/time parameters are used, quotation marks must be placed around literal constants. See the [Record Output](#) chapter for details on the *File Format*.

Note 2: It is possible to execute **R0*R1* on the same break note track to have recording stop, and restart with a new filename.

[Record Folder](#) may be changed for the *Record To File* feature.

eg. ***RF=C:\Recordings**

Song Request. Specify the position a [Listener Request](#) will be inserted automatically if one exists. Song requests may be received via the *TCP Server* or *Serial Input* functions, usually from the Song Requester website script. See the [Communications](#) options. The *Song Requester* options are on the [TCP Communications](#) page.

eg. ***Request**

[Request Intro Folder](#) may be changed to have song request introduction files inserted from a different folder.

Note that subfolders for the current [Studio User](#) is supported so different DJ's can have different introduction files without using this break note.

eg. ***RIF=C:\RequestIntros**

Delete all Requests. Removes all unplayed requests. This may be useful to schedule at the start of a new show containing different genres, so unplayed requests made during the last show are not played in the next show.

eg. ***DelRequests**

Change [Speed/Pitch](#). Sets this option in the Output options / Main Player tab. This may be useful to change speed at

different times of the day.

eg. ***Speed=1.25**

Enable/Disable **Top-Of-Hour Timing** via [Song Outro Times](#) in the Advanced options.

***TOHOutro=0** (disable, uncheck)

***TOHOutro=1** (enable, check)

Enable/Disable **Top-Of-Hour Timing** via [Auto Speed](#) in the Advanced options.

***AutoSpeed=0** (disable, uncheck)

***AutoSpeed=1** (enable, check)

Configure [Auto Speed](#). Sets the Min Speed and Max Speed settings in the Advanced options.

eg. ***MinSpeed=-2**

eg. ***MaxSpeed=3**

Note: Both values set to 0 will disable *Auto Speed*.

Set text for the [Now Playing parameter %X](#)

***Extra={your text}**

Send Text via TCP or UDP (Pro edition):

Text or characters may be sent to a device that accepts a TCP connection.

***TCP[ipaddress:port]=text**

***UDP[ipaddress:port]=text**

The text will be followed by an automatic carriage return and line feed. The **text** may include binary characters using the notation **\$xx** where **xx** is a hexadecimal number. To output a \$ character, use \$\$.

eg. ***TCP[127.0.0.1:23]=ABC\$0D\$0A** will send *ABC* and a carriage return/line feed to the IP address 127.0.0.1 on port 23.

Serial Communications (Pro edition):

A device with a serial port may be controlled with Break Notes codes. Text or characters may be scheduled in a playlist to be sent when required. Configure the serial port settings on the [Communications](#) options page. A terminator carriage return and/or line feed may be appended to the text based on the *Terminator* option.

***S=text**

The **text** may include non-ascii characters using the notation **\$xx** where **xx** is a hexadecimal number. To output a \$ character, use \$\$.

eg. ***S=A\$42C** will send *ABC*.

[Enable Serial Input](#) on the Communications options / Ports tab may be enabled or disabled. This may be used to disable control from satellite receivers, for example, at certain times of the day.

***S1** (switch on), ***S0** (switch off).

[Contact Closure Relay Control](#) *(Pro edition):*

Hardware devices may be controlled with *Break Note* codes via a closure board. The specific port used is defined in the Contact Closure Output option on the Communications options / Ports tab. Up to 16 outputs may be switched to open or closed with the following code:

***ccn** where **cc** = the closure number 01 through 16, **n** = 0 (open), 1 (closed).

eg. ***021** (close closure 2), ***120** (open closure 12)

[Closure Board Output](#) *(Pro edition)*

When the *Contact Closure Output* is configured with a compatible USB/serial device, text or characters may be sent directly to the device, similar to the ***S** code above for sending to a serial port.

***G=text**

The **text** may include non-ascii characters using the notation **\$xx** where **xx** is a hexadecimal number. To output a \$ character, use **\$\$**.

eg. ***G=A\$42C** will send *ABC*.

[Contact Closure Inputs](#) may be individually disabled and enabled, or globally using one code. This may be used to set times of the day when satellite receivers need to control Studio, for example.

***Gn=0** (disable), ***Gn=1** (enable), where **n=0** for global input detection, **n=1** to 8 for individual closures.

eg. ***G0=1*G2=0** enables global closure detection and disables closure 2 detection.

[Axia GPIO Output](#) *(Pro edition)*

When an Axia GPIO IP address has been configured in the Communications options, an Axia device may be controlled.

***AxiaGPgpn=0** (unlatch), ***AxiaGPgpn=1** (latch), where **g=I** (for GPI) or **g=O** for GPO, **p** = port, **n=1** to 5 for each closure.

eg. ***AxiaGPO21=1** will latch closure 1 on port GPO2.

The 4 [Axia GPIO Inputs](#) may be individually disabled and enabled. This controls the checkboxes in the Axia Communications options. This may be used to set times of the day when satellite receivers need to control Studio, for example.

***Axialn=0** (disable), ***Axialn=1** (enable), where **n=1** to 4 for each GPI/GPO port.

eg. ***Axial2=1** enables port 2 detection. Note the character after ***Axia** is the letter **I** for input.

Send URL: This may be used to send an http or https URL to a web server, such as activating a server script.

eg. ***https://server.com/script.php?p=1**

Execute a File: This may be used to load a PDF or TXT file, for example, for a DJ to read an advertisement. It may also execute applications or batch files, etc.

eg. ***File=C:\Text\Advertisement.txt**

The break note supports date/time replaceable parameters and '?' wildcards as described near the top of this chapter.

Reload Playlist: Trigger a reload of the playlists currently loaded in the playlist viewer, roughly 10 seconds after the next song starts. This may be useful to reload embedded M3U or PLS playlists that contain other audio files that can change regularly.

***Reload**

Reserve Time for Live Announcements:

***Z** may be used to reserve time for live announcements in *Studio*. A duration applied to this break note will only be utilized by *StationPlaylist Creator* to prevent tracks being scheduled that will never be played. The duration will be ignored by Studio and skipped over.

This break note cannot have the track checkbox checked, so may be used to have play stop at this position during a live show when [Tick all tracks when playlist loaded](#) is utilized.

***Z1** is a variation of this break note which will not appear in Studio's playlist viewer at all.

***Hook** may be used to play a short excerpt of a song upcoming in the playlist. This can hook listeners in to staying tuned longer. Often several *Hook break notes are scheduled back to back.

***Hook=x** or ***Hook=Nx**

x is a number representing the xth song from the current position in the playlist.

Nx represents the xth song in the next hours playlist.

eg. ***Hook=6** will play a hook for the 6th song below the break note.

***Hook=N10** will play a hook for the 10th song in the next hours playlist. The next hours playlist needs to have been loaded for this to work, otherwise it is ignored.

The Track Tool is used to enter hook timings for all songs. Any songs without a *Hook Start* will use the *Intro Time* of the song if available, otherwise the [Hook Timings](#) set in the Advanced options will be used.

Hooks may also be selected from random songs in a category scheduled by *StationPlaylist Creator Pro 5.20* or later by using a Hook button in *Rotation Properties*. See the *Creator* documentation for more details.

Track Flow Control: *(advanced users)*

The following break note codes may be used to alter the normal sequential playing of tracks.

***Y=filename, folder, HTTP URL, or TCP address.** This code will only play the next track in the playlist if the specified file exists, or files exist in the specified folder, or the HTTP URL or TCP Server exists.

File example: ***Y=c:\spots\afire.mp3**

Folder example: *Y=c:\news
 HTTP example: *Y=http://myserver.com/stream:8000
 TCP example: *Y=myserver.com:80
 Special syntax: *Y+,*Y- (see below)

If the file(s), server, or URL does not exist, the next track after the break note will be skipped and not played. A TCP address may contain IP numbers, and must contain the port number after the colon.

The test for a valid HTTP URL may be useful for testing if a stream is active. If the stream is not available, Studio will skip over the next item in the playlist, which could be a spot announcing the stream is starting.

HTTP URL's work well for Shoutcast and Icecast streams, however, for Windows Media streams, the URL can only test if the WM server is up or not and cannot test individual streams.

Special syntax: *Y+ will check the existence of the track 2 positions down from the break note. If it does not exist, the next track after the break note will not be played.

*Y- will check the existence of the track above the break note. If it does not exist, the next track after the break note will not be played.

The break note supports date/time replaceable parameters and '?' wildcards as described near the top of this chapter.

Note: Two or more *Y break notes executed back to back will be ignored except the last one.

***X=filename, folder, HTTP URL, or TCP address.** This code has the opposite effect of *Y and will skip the next track in the playlist if the specified file exists, or files exist in the specified folder, or the URL or TCP Server exists.
 eg. *X=<http://myserver.com:8000>

*X and *Y break notes support date/time replaceable parameters as described near the top of this chapter.

***J** will jump the current position in the playlist to the first track at the top of the current hour. With the [Hour Markers](#) option set to *Ignore*, Studio will continue to loop indefinitely. With the other *Hour Marker* settings, *J will only function within the correct hours playlist. Once the clock changes to the next hour, the *J code will be ignored.

***J=n** will jump the playlist play position up or down to the location of a *Jumpn break note, as discussed below.

***Jumpn** indicates a position in the playlist. 2 positions are supported, *Jump1 and *Jump2. Studio can jump to this position in the current hours playlist only, via closure input commands, script commands, or via the *J= break note code (above). This may be useful when taking network feeds and the network is stopping its feed. Any unused commercial breaks can be skipped over.

***J=Next** will jump the playlist play position down to the next location of a *Jump break note. This includes *Jump with or without a number.

***Jump** indicates a position in the playlist to be used via closure input commands, script commands, or via the *J=Next break note code (above).

Examples of Use

The *Hour Markers* option may need to change automatically while in automation mode. For example, *Instant* is the norm, but for some hours a lengthy break note or programme is scheduled which spans more than one hour. In this case the *H0 break note code could be placed before the item to switch to *Ignore*, followed by a *H2 code to switch back to *Instant*.

Turning *Automation mode* off (*A0) from within a playlist may be used to plan manual voice breaks for the following day or entire week. The *Automate* button must be used to start play, which will then be stopped by the break note code at the required position for a DJ announcement. This is an alternative way of providing live assistance without using the track checkbox feature, and will take the job of voice break planning away from the DJ.

The *T, *Y, and *X codes may be used to play a lengthy stream if one exists, otherwise play Top Up tracks until the stream comes online again. Here is an example rotation testing for an active Shoutcast stream:

*Y=http://radiostream.com:8000/

Stream.pls

*X=http://radiostream.com:8000/

*T

Repeat throughout the rotation.

Example Break Note description

180:*User=Venus Flytrap*031*H0* News

This pauses play for 3 minutes (optionally with the line-in port opened), changes the user name, latches closure 3 on a contact closure board, and sets the *Hour Markers* option to *Ignore*. Each of these codes could also be placed in it's own separate break note. *News* will appear in the title column in Studio.

Example Concurrent Break Note Code

!OM06 Optional Text

The exclamation mark ! indicates this break note, when scheduled as an *Instant* [Timed Event](#), will play *Main Cart 6* without interrupting the playlist track currently playing.

Note: Codes that can insert multiple audio files in the playlist are not compatible with this function and will be ignored. eg. *C and *Dir. However, codes that replace the break note with one audio file, such as *Time, will play concurrently using the Cart Player.

Refer to the *Rotation Properties* chapter in *StationPlaylist Creator's* help documentation for information on scheduling break notes in playlists.

Timed Events (Timed Spots & Timed Break Notes)

Timed Events are used to play spots or [Break Notes](#) at a precise time, or as soon as the current track finishes when the time arrives, depending on the type of event, *Play Next*, *Instant*, or *Fixed*.

When several spots should be played sequentially at a specific time, set the same event time on all tracks.

Play Next and *Instant* events only fire while in automation mode, and are floating within the playlist. The position of a timed event in the hours playlist is not important. The *Creator* scheduler will place timed events in roughly the correct position. *Studio* will jump over any events in the playlist where the scheduled time has not been reached. When an event is about to play, all events for the same time will be moved in the *Playlist Viewer* and positioned under the current track playing.

A *Fixed* event is an instant event which will fire in both live assistance and automation modes, but is mainly designed for firing events in live mode.

In automation mode, *Fixed* events will not move within the playlist if the current play position is above the event in the playlist. In this situation, any tracks between the current play position and the event will be skipped over and not played, similar to a [Time Marker](#). If the *Fixed* event is above the current play position at the event time, the event will act exactly like an *Instant* event and move to below the play position when it is played.

A *Fixed* event will only fire in live assistance mode if no other non-fixed events are scheduled before it. All events must play in time order.

In live mode, a *Play Next* timed event will be highlighted in orange 1 minute before the event time as a reminder to the DJ to play the timed track. *Instant* and *Fixed* events will be highlighted within 15 seconds of the event time. With [Check Timed Events](#) enabled, *Play Next* and *Instant* events will also be checked to ensure they are played next by the operator. Fixed events will always be checked regardless of this option.

Timed Events are usually scheduled by *StationPlaylist Creator* within a rotation via *Rotation Properties*, or in the *Timed Events* section of *Schedule Properties*.

With the exception of [Concurrent Break Note Codes](#), all *Instant* timed events will interrupt and truncate whatever is currently playing at the time. The current track will be faded at a speed determined by the [Truncation Fade Time](#) setting in the Event Times tab.

Timed Events may be inserted directly into the current playlist using the [Insert Tracks](#) dialog in *Studio*.

Timed Events are loaded into the *Playlist Viewer* with the scheduled time appearing to the left of the artist, in the format **~[hhmm]**. The **~** represents a *Play Next* event. **![hhmm]** for an *Instant* event, and **@[hhmm]** for *Fixed*.

In Automation mode, *Timed Events* will always be played and never skipped. Any *Timed Events* not played when the hour changes will be played immediately before the new hours playlist starts.

Several items may be scheduled for the same start time. In this case, the first item will show with the usual timed icon  and all following items scheduled for the same time will appear with the expired icon . All these tracks will play sequentially once the first item starts playing.

An event may be scheduled for any minute/second of the hour. Events scheduled for the 60th minute are known as *End-of-hour Timed Events* and have a special purpose described below.

End-of-hour Timed Events

Timed Events may be scheduled to finish precisely at the top of the next hour. This may be useful for playing a jingle before a live news feed. for example.

These special *timed events* must be scheduled for 60 minutes and 0 seconds past the hour. The actual event start time is calculated so that the last event finishes precisely at the top of the next hour. The event times are recalculated when these items are loaded, inserted, deleted, or moved.

When the [Hour Marker](#) option is set to *Instant*, these end-of-hour events are always played instantly at the specified time. plus or minus the [Start New Hour Offset](#) setting.

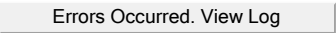
End-of-hour *timed events* must be the last items in the playlist for the hour. *StationPlaylist Creator* schedules these items correctly at the end of the hour, regardless of where they were positioned in the rotation.

Logging

Tracks played, various events, warnings and errors are logged to one or more CSV files located in the path specified in the [Log Folder](#) option.

Each type of track is associated with a type number as follows:

- 0 = General track (with CD icon, eg. Songs).
- 1 = General spots.
- 2 = Voice tracks, voice intro's and outro's.
- 3 = Non-audio break notes, executables.
- 4 = Carts.
- 5 = Commercials.
- 6 = [Studio Monitor](#), TCP server connections and errors, and [serial port](#) communications.
- 7 = skipped tracks - tracks that were not played at the end of an hour.
- 8 = Miscellaneous events such as playlist loaded, hour markers loaded, and some less important warnings.
- 9 = Important warnings & errors.

When a *type 9* error or warning occurs, a button will flash on the screen . Click the button to view the current days [Played Log](#) in the [Log Viewer](#). The appearance of this button may be disabled by enabling the General option [No Error Button](#).

Time and temperature announcements will either be logged as type 1 or 2 depending on the [Insert As Voice Tracks](#) option. Other break notes that are replaced with an audio file will be logged as type 0, 1 or 2 as appropriate.

All track types are output to the *Played Log* named in the format **SLog-yyymmdd.CSV** (2 digits, **yy**=year, **mm**=month, **dd**=day). The *Played Log* may be viewed from the [View menu](#).

Songs and spots may also be output to 2 separate log files. This is controlled in the [Track Info & Logging](#) options. The Track and Spot log files may be completely customized based on templates of parameters. The *Played Log* is a fixed format.

The Default *Spot Log* is required when reconciling commercials scheduled by Natural Log traffic/billing software.

The default format of the log files will load directly into a spreadsheet which may be used to filter or sort the entries by *type*, to provide track information for performing rights reports, or billing information for advertisements, etc. *StationPlaylist Creator* also has a logging system which produces smaller log summaries of tracks & spots used. However, *Studio's* logs may be required because not all scheduled tracks may be played, and additional tracks or spots may be manually inserted into *Studio*.

The *Played Log* is always output in UTF-8 character encoding to support non-ASCII characters. The *Track Log* and *Spot Log* can be output in UTF-8 or ANSI.

Studio deletes old log files every day at midnight that are older than the number of days specified in the [Track Info & Logging](#) options.

Digital Signal Processors (DSP)

Studio supports most DSP plugins designed for the Winamp Media Player, to process the audio before it is sent to the soundcard. This is most commonly used for compressor/limiters and internet stream encoders.

A 3rd party VST plugin loader is included with Studio which supports older 32-bit VST plugins only.

This free 3rd party Reverb VST plugin comes highly recommended.

https://stationplaylist.com/VST_Freeverb3.zip

Direct-X DSP plugins may also be utilized by installing this free 3rd party plugin.

FFX4: <https://vb-audio.pagesperso-orange.fr/us/products/dxrack/dxrack.htm>

Winamp DSP plugin DLL's should be copied to the *StationPlaylist\Engine\Plugins* folder to appear on the *Mixer* tab.

If the Winamp media player is installed, some known DSP plugin DLL's will be copied from the Winamp folder to the above folder when Studio is started, and when the Refresh button is clicked on the *Mixer* tab. The Winamp folder must be specified on the [Folder Locations](#) page.

Multiple DSP's may be selected on the [Output](#) tabs in the order required. *Studio* includes two 3rd party compressor/limiter plugins. These are used to keep the audio volume at consistent levels so listeners do not need to turn the volume up and down when quiet and louder songs are played. Also included with *Studio* are 2 equalizers, a reverb plugin, and the [SPL Encoder](#).

Sound Solution is a sophisticated multi-band compressor/limiter/expander. This plugin can provide results similar to that of many expensive hardware processors used by professional AM/FM radio stations.

Several presets are available to provide a different sound. The default preset provides a low compression configuration. To select another preset, click the +/- key, and click Load. Clicking the Save button will overwrite the current preset.

Here is the 3rd party [documentation for Sound Solution](#).

Note: Sound Solution requires a lot of CPU processing time, and we do not recommend using it with anything slower than a 2Ghz CPU. This plugin only supports an audio [sample rate](#) of 44100.

Tomass Limiter is a much simpler 2 band compressor/limiter which uses much less CPU time and can be used on slower PC's. The results are still very good. This plugin only supports an audio [sample rate](#) of 44100.

250 Band EQ is a 3rd party graphic equalizer featuring a rather unique interface to select the precise shape of the equalization over all audio frequencies.

Equalizer is a high quality 3rd party graphic and parametric equalizer plugin with 18 bands per channel. Unlike the 250 Band EQ above, it accessible for visually impaired users. This plugin uses 16383th order FIR filter with FFT algorithm.

After checking the DSP checkbox, close the Studio options to load the plugin invisibly. Load the options again and click *Configure* to display the dialog and modify the settings.

Note 1: Click *Preview* after making changes to the settings.

Note 2: Be sure to *Save* your selected settings to a file and set *Autoload* to automatically load the settings when Studio is restarted.

Note: The **Equalizer** configuration dialog is modal, which means you cannot keep it open without affecting Studio's operation. Ensure the dialog is closed before the current song is finishing otherwise playback will stop.

SPL Encoder is a stream encoder for streaming audio across the internet or intranet. See the [Internet Streaming](#) chapter for more information.

SPL Tone Detector is a DSP to detect low frequency tones in the audio, usually via a network feed entering the soundcard, or an internet stream, and perform a specific function such as terminating the network feed and playing local tracks before rejoining the network. This plugin is included with Studio, but a licence must be purchased before it will function. See the [SPL Tone Detector](#) chapter for details.

SPL RTP Audio Sender is an encoder for sending audio data to computers or devices, usually on the local network, via RTP (real time protocol). *Studio* and our [Streamer](#) app can accept [RTP streams](#). RTSP servers like Wowza, GStreamer, and MediaMTX can accept RTP streams for distribution.

When sending over the internet, a reliable wired internet connection is required at both ends for best results. Wifi can cause audio dropouts. Metadata will be sent within the RTP stream for StationPlaylist software to read.

The audio may be sent to two separate destinations, however, an IP ending with .255 will broadcast the audio to all devices listening on the specified subnet.

Payload: Specify MP3, or the PCM format to send. Only 16-bit raw PCM is supported. Options included are standard MSB 44.1khz stereo and mono, plus a non-standard LSB PCM 44.1 or 48khz. *StationPlaylist* software and Barix devices (ExStreamer) support playing all payloads.

When selecting the PCM Mono payload, the left and right channels are combined and output as mono, transferring half the amount of data. This is recommended for single channel microphones.

Selecting MP3 will ask for a Bitrate. MP3 data is sent using VBR (variable bitrate) with these approximate bitrates. *Medium:* 128kb/s, *High:* 192kb/s, *Very High:* 256kb/s.

Host/IP: Enter an IP address or domain name. For IPv6 destinations, enclose the address in square brackets.

Port: Enter the UDP Port number.

Visible at Startup: When enabled, the RTP Sender window will appear when the sender is loaded. When unchecked, the window will be minimized to the Windows System Tray as an orange satellite dish icon. Click the icon to Restore.

Start/Stop: Start and stop sending a stream.

Hide: Minimize the window to the Windows System Tray as an orange satellite dish icon. Click the icon to Restore.

Audio Output (Advanced): The audio recorded from the mixer or soundcard and processed by any DSP plugin may be output to a separate sound device for monitoring. This may be useful for configuring a DSP plugin for the best sound, or used to output to a transmitter, using Streamer as a compressor/limiter.

Note: This option should be set to *Disabled* for normal use.

Buffer Size: Sets the size of the DirectSound output buffer. The default of 500ms should be adequate for most computers but may need to be increased to a maximum of 2000ms if audio stuttering appears out the soundcard.

Read Metadata from: *Streamer* can read the artist and title information of the current playing track using the following methods. This information is sent to the *SPL Encoder* and *RTP Audio Sender* to incorporate the metadata in the stream.

None: No metadata will be read.

File: A text file. The first line of the selected *Filename* will be read every time the file is modified.

UDP: Read text from the selected *UDP Port*.

Studio: Read directly from *StationPlaylist Studio* operating on the same PC.

When *RTP Stream* is selected for the *Input Device*, this option will revert to *None*, as the metadata in the RTP Stream will be read automatically.

StationPlaylist Studio can send metadata via the *Now Playing* feature via UDP or a text file. However, *Studio* can update most Icecast and Shoutcast servers directly using the *Output via HTTP Request* options in Studio's *Now Playing* options, which is more efficient.

SPL Tone Detector

This is a DSP plugin included with Studio, but a licence must be [purchased](#) before it will function. The plugin is enabled in the [Output Options](#) / Mixer tab.

The tone detector detects inaudible low frequency tones in the audio, usually via a network feed entering the soundcard, or via an internet stream playing in Studio. It can detect 2 separate tones, and also a combination of the 2 tones, making a total of 3 possible actions.

Typical use is to perform a specific function when a tone is detected, such as terminating the network feed and playing local tracks before rejoining the network. Another common use is to leave the satellite feed operating and playing local cart tracks while the network volume is reduced.

Frequency A: Enter the frequency in hertz to detect. Maximum 100. eg. 25

Frequency B: Enter the frequency in hertz to detect. Maximum 100. eg. 35

Duration: The minimum length the tone will be in the audio stream. If the tone sent is usually 2 seconds in duration, set this to 2 seconds. Set too low may cause the trigger to be sent twice. A short tone could be detected within a song and cause an unwanted trigger.

Channel: Sometimes tones are sent in only one audio channel. If the tone is sent in both channels, you may select either Left or Right.

Action Message Codes: The table displays the available message codes and associated functions. We will consider additional functions on request. The Functions below are described in the [Communications Options](#) chapter.

Code	Function
0	Disabled (No message code is sent to Studio)
40001	Exit Studio
40045	Play
40046	Pause
40047	Instant Stop
40147	Stop
40048	Next Track
40157	Automate Off
40857	Automate On
40957	Automate Toggle

40711	Mic On
40811	Mic Off
40911	Mic Toggle
40712	Line-In On
40812	Line-In Off
40912	Line-In Toggle
40713	Record To File On
40813	Record To File Off
40913	Record To File Toggle
40901	Run Script T1.scp*
40902	Run Script T2.scp*
40903	Run Script T3.scp*
40905	Jump To 1
40906	Jump To 2
40907	Jump Next
40908	Jump Back
41101-41124	Play Main Cart 01-24
41201-41224	Play Shift Cart 01-24
41301-41324	Play Ctrl Cart 01-24
41401-41424	Play Alt Cart 01-24

* See the [Communications](#) chapter for information on creating a script.

A Only: Execute this message code when *Frequency A* is detected but not *Frequency B* within the same *Duration*.

B Only: Execute this message code when *Frequency B* is detected but not *Frequency A* within the same *Duration*.

A and B: Execute this message code when *Frequency A* and *Frequency B* are both detected within the same *Duration*.

Trigger Cutoff: Fine tunes the *Duration* above. When a tone is detected, the sliders on the right will move up. Only when the left (Max) slider reaches the height of a trigger on the right will the message code be sent to Studio. If this is set too low, a tone in a song may be incorrectly detected as a trigger. This often needs to be between a quarter and half way from the bottom.

Apply (button): After any changes have been made, the *Apply* button **must be clicked** for the changes to take effect.

Register: Enter the *Name* and *Code* provided in the purchase email and click the *Register* button to activate. Without activation, the detector will not send any message codes.

Sound Solution

Studio and FM broadcasting oriented multiband processor unit.

Note: StationPlaylist cannot provide support for this processor.

Features:

- Multiband Compressor-Expander-Limiter
- Center frequencies B1=170Hz, B2=1000Hz, B3=3200,B4=7200,B5=12000
- Gated AGC
- Stereo expander
- Dual band output limiter / compressor / clipper
- Bass Equalizer
- Built in preemphasis 50-75uS generator and lowpass antialias filter

What it does:

Recording or broadcasting an audio signal requires that it should be limited in its dynamic range.

In broadcasting the band must be limited in order to not interfere with the adjacent channels while in recording studios dynamics must be limited to avoid the final media saturation (BTW, if you analyze most CD contains severe clipping due to this effect).

This plugin realizes a complete multiband processor to “pump up” your music to make it ready to be broadcasted or recorded into a CD.

All controls are accessible to the user for maximum flexibility, even if this could be a bit nasty for the unexperienced people.

Functional blocks:

the functional blocks are explained in the same order that the audio signal encounters them.

STEREO EXPANDER:

it is a basic but effective stereo expander and it has two controls:

Level: the effectiveness of the stereo expander expressed in percent.

Depth: in a certain sense, is the “size” of the stereo image; large amounts can make the high frequencies (cymbals) to loose definition.

A “stereo image monitor” allows a visual indication of the stereo image content.

AGC:

the AGC is a slow acting leveling block that keeps the input signal of the multiband processor almost at the same level.

The “GATING” function increments the release time of the multiband processor to prevent noise rush up during low level passages. Both AGC and the multiband compressor will not remain “stuck” forever, but they will recover the maximum gain in about 1 minute.

The GATE THRESHOLD should be set around -30, -40dB for most music.

All compressor bands are connected to the same *gating* bus, except if you operate the processor in “INDEPENDENT GATE”: in such way every band samples *its input level* instead of the general input. Sincerely i cannot say to hear so much difference between the “independent” and “nonindependent” mode, but i presented this control to increase flexibility.

Finally, the “OVERDRIVE” control sets the compressor driving level; high settings results in a louder and denser sound.

BASS EQ:

to strengthen the bass of your music you can use this small parametric equalizer.

Frequency: adjusts the frequency of the resonator. For deep bass set it around 60-65Hz, to enhance “drum punch” it could be set around 100-150Hz.

Gain db: adjusts the effectiveness of the resonator filter. The higher the setting, the higher the enhancing.

Remember that it *cannot create* “bass energy” if it is not present at all.

MULTIBAND PROCESSOR:

it is the real “heart” of this plugin and many controls and functions are available to the user.

The three processes (compressor, expander, limiter) and the five bands are arranged as a 5x3 matrix; using the “CFG” for the *row* and “COMPRESSOR”, “LIMITER” or “EXPANDER” for the *column* you can tweak any parameter of any process.

For a more comfortable set up, the “GLOBAL” function make the parameter that is under editing to be copied to the other bands related to the same process.

That is, if, for example, you want to set all the compressor thresholds to -6dB, simply push the “COMPRESSOR” button and any of the “CFG” buttons of the multiband limiter.

Press the “GLOBAL” button and set the “Threshold” slider to -6dB.

Depress the “GLOBAL” button and check, pushing the other “CFG” buttons, that all bands have the threshold set to -6dB.

The “PROCESS ACTIVE” checkbox indicates if that process (compressor, expander or limiter) is active or not.

Compressor:

a compressor is used to decrease the dynamic range of an audio signal so that a “x” dB increase of the input signal will result in a “x/ratio” change of the output.

For example, if the compressor ratio is set to “4.0” and the input signal suddenly rises of 10dB, the output signal will rise only of “10/4.0=2.5dB”.

Below the threshold the signal is unaffected.

Expander:

an expander is the complementary process of the compressor so that the output signal is decreased of “x*ratio” dB for an “x” dB fall of the input signal below the threshold; it is used for noise reduction.

For example, if the expander ratio is set to “2.0” and the input signal falls 4dB below the threshold, the output signal will fall “4*2.0=8dB”.

Above the threshold the signal is unaffected.

Limiter:

a limiter is an *infinite ratio* compressor, so for any increase of the input signal above the limiter threshold, there is no change

in the output signal.

As for the compressor, below the threshold the signal level is unaffected.

Ratio:

As said, it is the effectiveness of the compressor or expander. For the limiter the control is still present but has no effect.

Threshold:

The level above or below which the compressor/expander becomes active.

Attack-release:

All these level changes are applied to the signal within some time.

The time the processor takes to adapt to an increase of the signal is called the "Attack time", the time it takes to recover its state after a transient is called the "Release time".

Both affects the sound, a small "attack" time makes the processor to react very quickly to the changes of the signal thus preventing clipping, but sounding quite unnaturally if very short times are used. Short release times tends to create a "denser" sound, but exaggerating this effect leads to unpleasant and fatiguing listening.

It is a wise solution to adjust the attack time according the operating band, that is using a slow attack time (40-60ms) for the bass frequency band (band1), a medium-slow (20-30ms) time for the low-medium band (band2) and shorter times for the high frequency bands.

Band Gain:

After the block of bandpass filters that split the audio signal into separate bands, after the expansion/compression/limiting processes, the signal is summed again to form the broadband signal. The "band gain" control sets the level of mixing of the various bands in order to give the signal a sort of equalization. Adjust it according your taste.

Band Link:

It links, in percent, two bands so preventing, for 1-2 band link, an abnormal bass expansion during a voice solo or, for the higher bands, it helps in reducing high frequency clipping.

Dual Band Compressor Limiter:

Well, now the signal has been stereo expanded, leveled, splitted into five bands, dynamically expanded, compressed and limited then summed again.

It is now spectrally balanced, it might sound louder, but it still presents some peaking and, for this reason, it is not still suited to "fit" perfectly a transmission medium.

So, a final two bands compressor/limiter smoothes the processed sound splitting it again into two bands, a high-frequency band above 6KHz and a broadband band with all below 6KHz.

The controls are the same of the multiband processor so no further explaining is necessary, but I may suggest to use high ratios for both the LF and HF bands in order to prevent high clipping induced distortion.

Adjust the "Density Overdrive" control to fit your needs of loudness.

Last control, not present into the multiband limiter, is the clipping level; since some peak always escapes the multiband compressor and the final two bands limiter, a soft clipper removes the remaining peaks obtaining the output peak limited signal.

OTHER CONTROLS:

M (Mute): as the name says, pressing it results in the muting of the related band.

It is useful to have an idea on how the bands are divided into.

Test tone: a 324Hz tone is generated to allow the alignment of the recording equipment to the maximum output level.

Input conditioning: when pushed, it turns on and off the input conditioning filters. Even if it is suggested to keep this feature on, you may leave it according your taste.

Bypass all: the output is directly connected to the input, and it is useful for comparison.

No Clipper: self explaining. It switches off the clipper.

No Expander: it turns off the stereo expander. Useful for comparison.

Preemphasis on: turns on the preemphasis generator. If you use this processor for FM broadcasting, you can feed directly a stereo exciter. In this case you have to turn off the preemphasis generator of your exciter and turn on the one into your processor.

The time constant should be selected according to the rules of your country.

Levels Monitor: it simply shows the input and output levels thus giving an idea of the processor efficiency. The “OUT LEV” slider sets the output volume.

Load-Save Preset: the first time the plugin is loaded, it creates an ss0.dat file “DEFAULT” preset. You can edit and save (choosing a number) up to 21 presets (0-20). When a loaded preset is edited, an “E” (edit) will flash near the “ON AIR PROCESS” indication. If the process is saved or another is loaded, the flashing “E” will disappear.

Some last words:

An audio processor is a nonlinear process, that is, even if the output signal might be slightly more attractive respect to the input signal, it has *surely* more distortion respect to the input. For this reason, always try to use the cleanest possible audio material to get the cleanest output audio and remember that the correct adjustment of a multiband processor is a quite complicated task, so, don't be frustrated if after thirty minutes you still cannot get your sound.

Remember also that “extreme loudness” settings are well suited only for certain kinds of music (pop, disco, rap...) while are awful for other kinds of music; so always adapt the processor to the format of your radio.

General settings often sound well with most music formats even if they have not the same loudness.

The output sound is always a tradeoff between loudness distortion and cleanness and you must choose the tradeoff between them according to your taste.

Another last tip is that you might avoid the use of high stereo expander levels especially with low bitrate mp3s; mpeg puts a lot of “trash” into the stereo image so, often, enhancing the stereo image you could enhance just “mpeg noise” (a sort of “tingling” you may hear at medium-high frequencies).

Last recommendation is to use a good quality audio board with a “flat” output, that is no further bass or treble equalization must be added and only in this way you may expect to have a good peak control and a satisfactory audio quality.

The design of this processor represents my studies about DSP and C programming and the efforts of many good people who tested this product and gave me precious indication to make it better and better. I'm still looking for people who want to contribute freely to this project, to make many “one penny radios” to be on air with a satisfactory audio quality without having to spend much money for a professional equipment.

You can contribute with suggestions about audio algorithms and/or audio processing techniques (clippers, bass enhancers, stereo expanders...) or simply with your ears to test my “frankenstein's” processors; I'm here to listen to your ideas.

Thanks to:

Paul Gallo for ideas and support.

Jean Marc, Tom, Steve for precious suggestions about broadcast processing.

Author: Alessandro Tomassini

Internet Streaming

Two pieces of software are required for internet radio streaming. A stream encoder, which is installed at the audio source (ie. your PC), and a stream distribution server which is installed on a PC anywhere in the world.

The stream encoder, included with *Studio*, takes the audio produced by *Studio* and encodes it on the fly to a codec and bitrate of your choice. The bitrate and audio format of the stream may be completely different to the format of your audio files. For example, you may have a mixture of MP3 and WAV files on your hard drive, but you may stream the audio in AAC+ format, or multiple formats simultaneously.

With the exception of the [Windows Media Pull](#) method, the encoded stream cannot be listened to directly. The stream needs to be sent to stream distribution server software which distributes the stream to the listeners.

The [Use Mixer](#) checkbox should normally be enabled when stream encoding.

Stream Encoders

SPL Encoder is included with *Studio*. This provides stream encoding in various formats including AAC+ (HE-AAC), MP3, WMA (Windows Media Audio), WMA Pro, Ogg Vorbis, and Ogg FLAC. It is compatible with Icecast Server, Shoutcast Server (v1 & v2), and Windows Media Server for distribution.

WMA encoding utilizes the encoders installed with Windows Media Player. We recommend version 11 or later of WMP is installed on the encoder PC, which provides WMA Pro encoding for much better sound quality. Listeners will need WMP v10

or later installed to hear the best sound quality. Earlier versions of the player will hear a lower quality stream.

Studio supports loading any Winamp DSP compatible stream encoder. For example, the *Nullsoft Shoutcast v1 DSP* or *SAM Encoders DSP* may be used as a replacement for *SPL Encoder* if desired. Note the *Shoutcast Source v2 DSP* encoder is not supported. Install the plugin to the Winamp folder as usual and *Studio* will copy the files to the required folders. See the [Digital Signal Processors](#) section of the *Output* options chapter.

Stream Distribution Software

With the exception of the [Windows Media Pull](#) method, the encoded stream needs to be sent to stream distribution software before listeners can listen to the stream. This software can be difficult to configure, and must be installed where adequate upload bandwidth is available.

DSL or similar speed internet connections do not usually provide enough upload bandwidth to support more than about 4 to 8 broadband listeners, so many internet stations use a stream hosting company to host the distribution software, as they have lots of inexpensive bandwidth to support many listeners. They will also take care of the server configuration which can be technically challenging. This is often a different company than your web hosting company, however, some companies provide both services.

StationPlaylist.com provides a stream hosting service at competitive prices. See the [Stream Hosting](#) page on our website for pricing. Also see the [FAQ](#) on the above page for more details regarding internet streaming.

If you have plenty of internet bandwidth available, a free 3rd party stream distribution program may be installed on the same PC as *Studio*, or any PC on your local network, preferably with direct access to the internet. You may need to hire technical help to set this up for you.

A static IP is required if you plan to host the stream server yourself.

Here are links to free stream distribution server software:

Icecast Server	supports AAC+, MP3, Ogg Vorbis, Ogg FLAC streams
Shoutcast Server	supports AAC+ and MP3 streams
Windows Media Server	supports WMA streams (requires a Windows Server 2003 operating system)
Streamer p2p	supports Ogg Vorbis streams

SPL Encoder Configuration

We can provide support for *SPL Encoder* but not for the server software above unless we are [hosting](#) it for you. See www.stationplaylist.com/hosting.html. The following instructions assume a stream distribution server is up and running.

Note: *SPL Encoder* supports sending a single stream to a Shoutcast v1 or v2 server. However, from Shoutcast Server **v2.4.7** and later, multiple streams may be sent to the same server by placing the stream ID in the Password field using this syntax...

password:#n where **n** is the stream ID number. eg. MyPass:#2

Using *SPL Encoder* connected to Studio's DSP system is most useful for internet stations that are fully automated and not using a hardware mixer / broadcast console for live shows. When using a mixer, we recommend using our standalone [Streamer](#) application to record the audio from the mixer/soundcard.

- In Studio's Options, go to the *Output page* and ensure the *Use Mixer* checkbox is checked (ticked).
- Click the Mixer tab. If you intend to use Studio's Mic Input feature, check the [Continuous Stream](#) checkbox.
- Tick the checkbox beside *SPL Encoder* in the DSP list.
- Click *Close* to close the options dialog. This will display the *SPL Encoder* window.
- On the *SPL Encoder* window, Click the *Add Encoder* button. This will add a line of text in the list box below.
- Double-click the line in the list box to open the encoder configuration window.

In the Encoder Configuration...

- Firstly select the **Server Type** -- Icecast, Shoutcast, or Windows Media.
- Select the **Encoder Type** (codec) from the pull-down list. MP3 is what most listeners players support, however, it provides the worst sound quality at bitrates below 128kb/s. AAC+ by far provides the best sound quality at lower

bitrates and has a maximum bitrate of 128kbps. See [Which Codec To Choose](#) below.

Note: The Shoutcast distribution server only supports MP3 and AAC+ encoder types.

- At the top, select the **Bitrate or Quality**. The *Quality* applies only to Ogg Vorbis streams. This determines the sound quality the listeners will hear, and also the amount of internet bandwidth the listener must have access to, to listen to the stream. It will also determine the cost of hosting the stream at a hosting company. If you wish to cater for dial-up modem users, we recommend a bitrate of 28 or 24.

Note, the stream bitrate is completely independent of the bitrate of your audio files.

- Enter the desired **Samplerate**. This also determines the sound quality the listeners will hear. 44100 is the CD quality sample rate, however, some formats do not sound good at low bitrates with a high sample rate. MP3 streams of 64kb/s and lower will likely need a 22050 sample rate to avoid distortion. AAC+ sounds very good with 44100 sample rates down to 20kb/s.
- Enter the number of **Channels** -- 1 for mono or 2 for stereo. Mono is recommended for low bitrate MP3 streams.
- Enter the **Server IP** of the PC hosting the distribution server software. If you are hosting the software yourself, this will be a local LAN IP, otherwise it will be a server name or server IP provided by your stream hosting company. Is not used for *WMA Pull*.
- Enter the **Server Port** as configured in the distribution server software. Your stream hosting company will provide this information. This is often 80 for WMA streams.
- **Encoder Username** is for *Windows Media Push* streams only.
- Enter the **Encoder Password** as configured in the distribution server software. You most likely provided a password to your stream hosting company when signing up. Is not used for *WMA Pull*. For Shoutcast v2 servers, see the note above.
- A **Mountpoint** is only required for Icecast2 Server and Windows Media Push. When using a Shoutcast server, ensure this field is completely blank.
The field must start with a / character. For Icecast2, it is usually best to include a file extension based on the stream codec. eg. [/stream.aac](#) for an AAC+ stream.
For Windows Media Push, this field relates to the publishing point configured in the Windows Media Server.
eg. [/stream](#).

Now click the YP Settings tab at the top of the window. This provides information about your station that is sent to internet radio directories such as <https://dir.xiph.org> or <https://shoutcast.com>. These directories are used by internet users to find your station by searching on their preferred genres, etc.

- The **Stream Name** is usually the name of your station.
- The **Stream Description** can contain any text you wish describing your station.
- The **Stream URL** is your homepage URL, not the stream URL.
- The **Stream Genre** may contain multiple genres separated with a space.

Here is additional information to get maximum benefit from your directory listing on the Shoutcast Directory (www.shoutcast.com) when using a Shoutcast Server.

Only the *Stream Name* and *Genre* fields are utilized by the Shoutcast Directory. What you enter in the *Genre* and *Stream Name* fields can greatly affect the number of listeners that find your station.

The Shoutcast Directory limits the Genre field to 25 characters. Try to enter 2 or 3 relevant genres you can fit into 25 characters with a space between each one.

The Shoutcast Directory limits the Station Name to 64 characters. You can add more genres and other possible search terms into the Station Name.

For Windows Media, only the *Description* field is utilized by Windows Media Player.

Now click OK to save the configurations.

Start *Studio* playing if it is not playing already. You should see *Peak Meter* VU levels moving on the *SPL Encoder* window.

Check (tick) the *AutoConnect* checkbox, and click the *Connect* button. If the server software is running, the *Transfer Rate* column in the list box should show the selected bitrate. If so, then you are streaming!

If not then double-check the *Server IP*, *Server Port*, and *Password* is correct.

Some encoder types support only specific bitrates depending on the sample rate and number of channels. An incorrect combination will result in an encoder error displayed in the Transfer Rate column. See the [Recommended Encoder Settings](#) table below.

All going well, a stream URL is now available for advertising on your website. Your stream hosting company can provide these details.

SPL Encoder supports encoding multiple streams in different bitrates and codecs. To add a second encoder, click *Add Encoder* again and repeat the steps above. It is often useful to provide a low bitrate stream for dial-up modem users, and a high bitrate stream for listeners with broadband.

Windows Media Pull: This is one of the encoder options in *SPL Encoder*. This encoder can be used without a distribution server. A Windows Media Player can access the encoded stream directly from *SPL Encoder*. eg <http://192.168.1.100>. However for security reasons, this method is not recommended for public access. There is no facility to obtain listener statistics without a Windows Media Server pulling and distributing the stream, and the server running Media Point Manager.

For this encoder, the *Server IP*, *Encoder Password*, and *Mountpoint* are not utilized.

Listener Statistics

StationPlaylist Studio supports reading the number of listeners from some distribution servers. See the [Listener Stats](#) options chapter for more details.

Stream Metadata

Metadata is additional information sent within a stream, usually containing the artist and title of the current song playing. This information is extracted from the stream by the listeners media player and displayed.

Studio supports two methods of sending this information. The song titles will be sent automatically within the stream in the format *Artist - Title*. See the [Stream Metadata](#) section of the [Now Playing](#) chapter for more information.

For Windows Media Audio, "Captioning" needs to be enabled in the listeners media player before the artist & title will be visible.

The *Advanced Metadata* options in *SPL Encoder* exist only for rare and unusual situations, and should usually be left at default settings.

Recommended Encoder Settings by Codec

AAC+			
Bitrate	Sample Rate	Channels	Notes
128	44100	2	High quality
64	44100	2	Very good quality
32	44100	2	Good quality

MP3			
Bitrate	Sample Rate	Channels	Notes
192	44100	2	High quality
128	44100	2	Very good quality
96-112	32000	2	Good quality
64	44100	1	Good quality mono
64	24000	2	Better than AM Stereo
32	22050	1	AM mono

Ogg Vorbis				
Quality	Bitrate	Sample Rate	Channels	Notes
4	128-138	44100	2	Almost CD quality
3	112-122	44100	2	Excellent quality
2	96-106	44100	2	High quality
1	80-90	44100	2	Very good quality
0	64-72	44100	2	Good quality
-1	48-54	44100	2	FM stereo
-2	32-40	44100	2	AM stereo

Which codec to choose?

There are advantages and disadvantages for using any one the above codecs. Several stations provide several codecs at different bitrates to provide the best service for their listeners.

AAC+ Advantages: This codec is the newest and provides by far the best sound quality at bitrates below 64k. Even at 32k, the sound is very pleasant in stereo with adequate treble. It is compatible with Icecast and Shoutcast Server. iOS devices and some browsers support AAC+. The maximum bitrate for our AAC+ encoder is 128kbps.

AAC+ Disadvantages: There are not many. Windows Media Player prior to Windows 7 cannot play AAC+ streams.

MP3 Advantages: Being the oldest codec of the 4, it has the most player support. Almost every audio player supports playing MP3 streams without downloading plugins, on Windows, Linux, and Mac, and all smart phones. It is compatible with Shoutcast and Icecast Server.

MP3 Disadvantages: Being the oldest codec, it produces the worst sound quality of all 4 codecs. A higher bitrate must be used to provide a reasonable sound quality.

Ogg Vorbis Advantages: This codec arguably provides the best sound quality of all other codecs at 96kb/s and higher bitrates. Most listeners listening to quality 3 or higher would find it difficult to tell the difference from the original CD. It also provides much better quality than MP3 at any bitrate. It is a patent free and open source codec. The other 3 codecs are proprietary. Player support is very high in Windows, Linux, and Mac.

Ogg Vorbis Disadvantages: Although many players support playing Ogg Vorbis streams, Windows Media Player and Helix Player require a plugin installed by the listener -- [WMP Plugin](#), [Helix Player Plugin](#). AAC+ provides better sound quality than Ogg Vorbis at bitrates of 64kb/s and lower. It is only compatible with Icecast Server and Streamer p2p. Support is not widespread in web browsers or smart phones.

Ogg FLAC: This is a lossless codec which encodes at roughly 800 kb/s and provides the best sound quality. Some stream hosting companies limit bitrates to well below this. Only use this codec if your audio files are in a lossless format such as FLAC, ALAC, or WAV. Not all browsers and media players support playing this format. A lot of bandwidth will be used and is therefore not suitable for listeners on mobile devices with a limited data plan.

WMA: This codec is effectively defunct these days.

Menu Items

Most menu items also have keyboard shortcut keys available, which are visible in the pull down menu.

Several of the the main menu items are also available from a right-click popup menu.

► [File Menu](#)

► [Edit Menu](#)

► [View Menu](#)

► [Controls Menu](#)

► [Cart Menus](#)

► [Help Menu](#)

► [System Tray Popup Menu](#)

File Menu

Some of the following options are also available from a right-click popup menu attached to the *Playlist Viewer*.

Append Next Playlist: Load the next hours playlist at the end of any existing playlists in the *Playlist Viewer*. The filenames of the playlists must match the [Playlist Filename Format](#) as specified in the options. Playlists are usually loaded automatically at a time prior to the top of the hour based on the [Load New Playlist](#) option. This option will only be available if a [Playlist Folder](#) and [Playlist Filename Format](#) are specified in the options.

Note: No more than 23 hours of playlists should be loaded in advance.

Append External Playlist: Manually select a .m3u playlist file to append to the *Playlist Viewer*. If no playlists have been loaded, a dialog will popup asking for the start hour.

Reload Playlist: Reloads playlists that have been modified, while play continues. Select this item when a change has been made to any playlists loaded in *Studio*, such as edits made in the *Playlist Editor* within *StationPlaylist Creator*. This function can be executed automatically in the *Pro* edition of *Studio* via the [Auto Reload Playlists](#) option.

A reload cannot occur during the following conditions.

- Within 8 seconds of the start or end of the current track.
- While a voice track is preloaded or playing.
- While playing a track that was inserted via a [break note code](#), such as *Play or *Dir.
- While the track playing is a duplicate of a track that exists further up the current hours playlist, such as a news or weather file.

Clear All Playlists: Remove all tracks from the *Playlist Viewer*. This is only available when play is stopped. A warning may appear depending on the [Unsaved Playlist Warning](#) option.

Delete Track: Remove the selected track from the playlist. The current track playing cannot be deleted. *Hour Markers* cannot be deleted, with the exception of the last *Hour Marker*.

Insert Random Top Up: Selects a random track from the [Top Up Folders](#) and inserts it above the current selected track. If no track is selected then it is appended to the bottom of the playlist.

Save Playlist: Saves a selected hour in the *Playlist Viewer* to a playlist file. When multiple hours are loaded between multiple hour markers, only the hour which has a track selected will be saved, not all hours loaded in the playlist.

Note that editing of playlists is usually done in the *Playlist Editor*, if available.

Open File Location: Open Windows File Explorer at the folder containing the selected file.

Track Preview: If enabled in the [General options](#), the selected track will be loaded into the [Preview Player](#) and played. This option is also available from the right-click popup menu. The *Preview Player* should be manually configured to select an alternative second soundcard before using this option.

Track Properties: Loads the selected track(s) into [Track Properties](#).

Load in Track Tool: Loads the selected track(s) into the [Track Tool](#). The *Track Tool* is used to establish Intro times and/or manual cue and segue positions for individual tracks by listening to each track with an alternative soundcard. The [Track Tool](#) option on the *View menu* loads the *Track Tool* with no file loaded.

Load in Notepad: This item is visible when a Break Note is selected containing lengthy text. The note will be loaded into Notepad. Hovering the mouse over the track icon of a Break Note will also display the note in a temporary window.

Close to System Tray: Closes the main window but *Studio* remains running in the Windows system tray.

Exit Studio: Terminates Studio. Confirmation is required if *Studio* is playing. This is equivalent to the Exit menu item on the [System Tray](#) menu. *Studio* may also be terminated immediately with no confirmation using the key combination Shift+Ctrl+Alt+X.

Track Tool

This utility may only be of use when using *StationPlaylist Studio* automation software. It's main purpose is to set intro and outro times of individual songs by listening to each track and clicking a button or key at the correct position. The tool may be used to set manual cue and segue positions, or by scanning the files to calculate cue and segue positions automatically. It may also be used to view track information in various columns. This information may be changed using [Track Properties](#).

Much of the *Track Properties* data is displayed in separate columns. Columns may be moved using drag & drop, and the column widths may be adjusted by dragging the column dividers. Click a column header to sort the tracks by that column. Click again to sort in reverse order. Columns cannot be added or removed. To not see a column, reduce the size so it is not visible or move it to the right.

The *Track Tool* may be loaded from *Studio*, *Creator*, the Windows Start menu / StationPlaylist folder, and the Windows File Explorer right-click context menu.

Files and entire folders may be inserted into the file list using the *Open* (files) and *Browse* (folders) buttons, or drag and drop from Windows File Explorer into the track list. The total duration of all or selected tracks is displayed in the status bar.

Important: When loading the *Track Tool* from outside of *StationPlaylist Creator*, and *Creator* is currently loaded, a *Rescan All Folders* should be performed in *Creator* before a playlist is created, to read all changes into the Category database.

Note: When loading the *Track Tool* from *Creator* or *Studio*, the player controls will be disabled when the [Track Preview](#) player is disabled.

[Keyboard shortcuts](#) are listed near the bottom of this page.

[Command-line parameters](#) are available for the [File Scan](#) and [Gain Scan](#) features, and to set track properties, at the bottom of this page.

Intro Duration:

This setting may only be useful when using the Pro edition of *Studio*.

The *Intro* time is usually the instrumental / non-vocal beginning of a song (song ramp), or the position in the song where the vocals start. These are useful for DJ's to see where they can talk up to at the start of a song while doing a live show.

Intro times are required for automatic VT/Song overlapping. These are generic *Voice Intro* or *Song Intro* spots, or voice tracks recorded outside of *VT Recorder*, or with [VT Recorder](#) set to *Automatic VT Overlap*. When these voice tracks are used, intro times should be established for every song in the library so they can automatically overlap the next song to emulate a live DJ. See [Voice Track/Intro Overlapping](#).

A blank *Intro Time* means that the track has not been intro timed, whereas a value of zero means the track has been intro timed and the vocals start immediately. Use the *Clear* button to remove the *Intro Time*.

This procedure may take several days to work through several thousand songs and may appear a daunting task, but working with one folder at a time over several days or weeks will get the job done and can be very worthwhile.

The *Intro* times of songs appear beside tracks in the [Playlist Viewer](#), as well as the *Track List and Playlist Editor* in *StationPlaylist Creator*.

An *Intro* time is normally set for songs, however, a song intro, outro or voice track may also have an *Intro* time entered against it. In this case, the value entered controls the song ramp overlapping that will occur in *Studio Pro*. See the [Song Intro Time Override](#) and [Intro Timing](#) options for more information.

Negative *Intro* times are only for use with voice tracks. Songs should only have positive values.

Song Outros will overlap the end of songs in *StationPlaylist Studio Pro*, but by default they will not overlap the song ramp of the following song. However, if an *Intro Time* is specified for an Outro track, *Studio* will treat the track just like a voice track / song intro, which can then overlap the following song ramp. In this case, a negative *Intro* time is recommended as this will overlap the end of the previous song associated with the Outro, as well as overlap the start of the next song if a song ramp has been established. See the [Intro Timing](#) option for more information.

See the *Spot Group Properties* chapter in *StationPlaylist Creator's* documentation regarding the scheduling of Song Intros and Outros.

Outro Position:

This may only be useful in the *Pro* edition of *Studio*, which will utilize this value when an automated voice track/voice intro/voice outro is scheduled after a song. This is not required when recording voice tracks in [VT Recorder](#).

An Outro sets the earliest possible time a voice track can start at the end of the song. The actual start position will be calculated by Studio depending on the length of the voice track and *Intro Duration* of the following song. As with song/intro overlapping, the song volume will be reduced while the voice track plays over the end of the song.

An *Outro Time* is normally set for songs, however, a song intro, song outro or voice track may also have an *Outro Time* set. This will take precedence over any Outro time specified on the previous song. Care should be taken to ensure the VT cannot overlap vocals at the end of the previous track.

Note 1: The *Outro* time on a voice track is set as the number of seconds before the end of the song. However, an *Outro Time* set in a song is the duration at that position, similar to a Segue time.

Note 2: The *Outro* time on a voice track will be ignored if it is scheduled as a timed event.

Cue, Overlap and Segue Positions:

These positions are used to manually establish when a track will start and finish playing, and the extent of the crossfade between each track. *Studio* supports calculating these points automatically based on the volume inside each file. See [Crossfading](#) in the *Input Options > File Input* tab. This usually works very well, but in some cases, the positions calculated may not be ideal. In this case, a track can be set to a *Fixed Crossfade*, and manual positions established by listening to the track.

The [File Scan](#) function below can be used to automatically calculate these settings.

StationPlaylist Creator also uses this information for determining an accurate accumulative duration for each hour, which determines the number of tracks scheduled.

Cue: The position where *Studio* will start playing the track from. If a track has an *Intro Duration* established, adjusting the Cue will also adjust the length of the *Intro Time* when clicking *Set*.

Overlap: The previous track may overlap up to this position in the track during crossfading. The previous track will fade out during this period. A value of at least 2.5 seconds is recommended for songs to provide a small amount of overlap.

Segue is the position near the end of the track where the crossfade should begin with the next track. This is calculated from the beginning of the track, not from the end of the track as often used by other broadcasting software.

Hooks: Requires *Creator Pro* and/or *Studio Pro* 5.20 or later.

This is a method to advertise the type of music the station plays by playing short excerpts of the songs in your library. This can hook listeners in to staying tuned longer. Random hooks may be scheduled in *Creator's* Rotation Properties, and hooks for upcoming songs in the playlist may be played in *Studio* via a break note code.

Hook Position: The position from the beginning of the song where the hook will start, often the start of the chorus.

Hook Duration: The length of time to play from the *Hook Start* position, often between 3 and 6 seconds.

General Operation:

This playback facility should only be used when *Track Tool* is running on a separate PC to that of *Studio*, or when two soundcards are installed, so as to not interfere with the broadcast audio.

Description of general usage:

- One or more audio files are opened and inserted into the *Track Tool*.
- Highlight a track and use the *Play* button to start the track playing.
- Use a *Set* button to save the current playback time into the associated option in the file. This will stop playback if *Stop on Set* is enabled.
- Use the *Test* button to listen to the track at that point to establish if the position is correct. If not, adjust the setting manually using the edit box before trying another Test. Finally click a *Set* button below to store the position.

Audio Graph:

Displays a half waveform view of the audio data showing existing positions set in the file with the following colors.
Cue: Yellow, Overlap: Orange, Intro: Pink, Outro: Pink, Segue: Yellow, Hook Duration: Olive

Click the audio graph to select a position. This will appear with a dotted line. The *Play* button will start play at the selected position. Right-click the audio graph to remove the selected position. Click a *Set* button below to store the position.

Positions can be more accurate when *Audio Graph* is enabled because the file is fully decoded to PCM before playback. When disabled, positioning relies on seeking within the audio file, which can be inaccurate for some lossy formats like MP3.

Tool Buttons and right-click menu items:

New: Removes all the tracks from the track list.

Open: Displays the *Open File dialog* to select one or more files from a folder. Press Ctrl+A to select all files within a folder. The selected files will be appended to the track list. Any existing tracks will remain in the list. Files may also be dragged and dropped from Windows File Explorer into the track list.

Browse: Browse for a folder to open. All the audio files in the selected folder will be appended to the track list. Folders may also be dragged and dropped from Windows File Explorer into the track list. Files in sub-folders will also be appended if the option *Include Subfolders* is checked (below).

Properties: Loads the selected track or tracks into the [Track Properties](#) dialog to enter or edit other track information. When multiple tracks are selected, *Track Properties* provides checkboxes to edit the same field or fields of all selected tracks.

File Scan: Opens the [File Scan](#) dialog which is used to automatically calculate Cue, Overlap, and Segue positions of all loaded tracks, based on volume settings. This is what *Studio* does on the fly when playing a track for the first time, however, it may be useful to set the volume parameters to different settings for different genres or tempos of music, or disable crossfading on certain spots or jingles.

Gain Scan: Opens the [Gain Scan](#) dialog to have all tracks play at the same average volume.

Player: Select a different soundcard to use when playing tracks in the *Track Tool*. This also affects the [Preview Player](#) available in *Studio*.

Copy Tags/Paste tags: All the track information from one track may be copied and then pasted to another track.

Select All: Selects all tracks.

Open File Location: This right-click menu item will open Windows File Explorer at the folder containing the selected track.

Paste from Explorer: Paste files or folders copied from Windows File Explorer. Files and folders can also be dragged and dropped.

Delete File: When *Enable File Deletion* is enabled below, this menu item will permanently delete the selected files from the hard drive. A warning will appear when deleting more than one file.

Reset Window Positions: Resets all window and column positions and sizes, and exits the program.

Playback Functions:

Play: Starts the currently selected track playing from the beginning.

Jump Start: Jumps the currently playing track to the beginning.

Rewind 5: Jumps play back 5 seconds from the current position.

Forward 5: Advances play by 5 seconds from the current position.

Jump End: Jumps the currently playing track to 10 seconds from the end of the track.

Stop: Stop playback.

Options:

Audio Graph: This may be unchecked to hide the audio graph feature described above. Selecting a track to play will be much faster.

Fixed Crossfade: When unchecked (default), the Cue, Cue Overlap, and Segue times are [calculated automatically](#) by *Studio* based on volumes inside the file. When checked, these values may be entered manually for instances where the automatic calculations are not ideal. *Studio* will never scan these files.

Fast Segue: When checked, the track will stop playing instantly at the *Segue* position within *StationPlaylist Studio*. This may be useful to play the first part of a news bulletin without hearing the remaining fading out. Leave unchecked for normal use.

Segue to End: When unchecked, clicking *Test* in the *Segue Position* box will start play 10 seconds before and stop at the Segue position. When checked, *Test* will start at the Segue position and play to the end.

Set on Test: When checked, clicking the *Test* button will also execute a *Set*. This saves the setting in the file every time a *Test* is performed.

Stop on Set: When checked (the default), clicking *Set* will also stop playback.

Enable File Deletion: When checked, individual audio files may be physically and permanently deleted from the hard drive using the right-click menu or Shift+Delete keys.

Include Subfolders: When checked, all files in subfolders will be loaded when using the *Browse* button or drag & dropping a folder into the file list.

File Timings:

Set: Sets the current playback time into the associated edit box and saves the setting into the file.

For example, if setting the *Intro Duration*, click *Set* at the point immediately when the vocal starts.

Use this button to also save manual changes made to the edit box.

Test: Plays the track based on the current setting to test if it is correct. If it is not, use the edit box to adjust the setting and try another *Test*. Ensure *Set* is executed after making a manual adjustment to save the change.

For the *Cue Position*, the *Test* button will start play from the *Cue Position* and play for 10 seconds.

For the *Overlap Duration*, the *Test* button will start play from the *Cue Position* until the *Overlap Duration* is reached.

For the *Intro Duration*, the *Test* button will start play from the Intro time and play for 5 seconds. The vocals of the song should start immediately if the *Intro Duration* is correct.

For the *Segue Position*, where the *Test* button plays from is determined by the [Segue to End](#) checkbox option above.

Clear: This changes the *Intro Duration* to an unset status which appears blank. This means the track has not been intro timed. The result is similar to a value of zero, except zero represents a track that where the vocal starts immediately at the start of the song.

Keyboard Shortcuts

Tool Buttons

Ctrl+O = Open files

Alt+Enter = Track Properties

Ctrl+S = File Scan
 Ctrl+G = Gain Scan
 Ctrl+P = Player configuration
 F1 = Help

Other

Ctrl+E = Open folder containing file
 Alt+1..Alt+9, Alt+0, Alt+-, Alt+= = Sort columns 1 through 12

Player Controls

Enter = Play
 P = Play
 S = Stop
 R = Rewind 5 seconds
 Ctrl+R = Jump Start
 F = Forward 5 seconds
 Ctrl+F = Jump End

Editing Controls

Ctrl + Up Arrow = Up 1 track
 Ctrl + Down Arrow = Down 1 track
 I = Set Intro time
 Ctrl+I = Test Intro time
 Alt+I = Clear Intro time
 T = Set Outro time
 Ctrl+T = Test Outro time
 C = Set Cue time
 Ctrl+C = Test Cue time
 L = Set Overlap duration
 Ctrl+L = Test Overlap
 Q = Set Segue time
 Ctrl+Q = Test Segue time
 H = Set Hook Position
 Ctrl+H = Test Hook Position
 J = Set Hook Duration
 Ctrl+J = Test Hook Duration
 F2 = Copy Tags
 F3 = Paste Tags
 Shift+Delete = When *Enable File Deletion* is enabled, permanently deletes the selected files from the hard drive.

Checkboxes

Alt+D = Enable File Deletion
 Alt+B = Include Subfolders
 Alt+T = Set on Test
 Alt+S = Stop on Set
 Alt+F = Fixed Crossfade

Command-line Parameters

The Track Tool may be loaded with command-line parameters to perform file scanning or to set track properties (file tags). This may be useful for calculating crossfade settings, or setting a fixed segue time for a file after it is downloaded from the internet, such as an hourly news file for example. This may be executed at specific or regular times by the Windows Task Scheduler.

When scanning files, only one of the parameters **/scan**, **/disable**, **/auto**, or **/gain** should be specified. When none of these switches are applied, the files will be loaded for manual editing.

Switch	Description
/f <filename or <folder>	If a folder is specified, all supported audio files in the folder will be loaded, otherwise the single audio file will be loaded. The filename may be text file with a .inp extension containing the filenames to load. eg. /f D:\test.inp If the file path contains spaces, the filename or folder should be included in double-

	quotation marks, eg. /f "D:\News Files\Sunday.mp3"
/sub	If a folder is specified above, all files in sub-folders will also be loaded.
/c <cue db>	Set the "Cue at" decibel value. eg. /c -30
/s <segue db>	Set the "Segue at" decibel value.
/o <overlap db>	Set the "Overlap to" decibel value.
/m <min overlap>	Set the "Min Overlap" value in milliseconds. eg. /m 2500
/n <max overlap>	Set the "Max Overlap" value in milliseconds.
/scan	Crossfade File Scan using the Cue, Segue and Overlap settings
/auto	Switch all tracks to Automatic Crossfade.
/disable	Disable crossfading
/gain	Audio Gain Scan using the preset options.
/silent	Doesn't display the File Scan window during a scan.
/settag "Name=Value"	Set the specified field <i>Name</i> in Track Properties to the <i>Value</i> . Binary characters can be included via hexadecimal notation \$hh. Some common field names are quoted in the table below.

Examples:

"C:\Program Files (x86)\StationPlaylist\TrackTool.exe" /f "D:\News Files" /s -27 /scan

This will calculate crossfade positions for all files in the "D:\News Files" folder using a *Segue* volume of -27db. The preset *Cue* and *Overlap* settings will be used.

"C:\...\TrackTool.exe" /f "C:\News.mp3" /settag "Title=News" /settag "Segue=120000"

For this one track, the *Title* is set to "News" and the *Segue* time to 120000 milliseconds, or exactly 2 minutes.

"C:\...\TrackTool.exe" /f "C:\File.mp3" /settag "Comment=Hello\$0AThere"

Adds a Comment to the file separated on 2 lines via the line feed binary character.

Common SetTag Names	Description
Artist	Song Artist
Title	Song Title
Album Artist	Album Artist
Album	Album Title
EAN/UPC	CD Code
Client	Client name or ID
Intro	Song ramp time in milliseconds used for overlapping voice tracks in <i>StationPlaylist Studio</i> .
Cue	The position in milliseconds where <i>Studio</i> will start playing the track from.
Segue	The position in milliseconds where <i>Studio</i> will stop playing the track.
FastSegue	1 = enable, 0 = disable. See Fast Segue above. Only use after a <i>Segue</i> has been set.
Language	Shows as "Region" but may be the Country or Language.
RestrictDates	Enter a date range the track can be scheduled or inserted. Format below.
RestrictHours	Enter a hour range on specific days of the week the track can be scheduled or inserted. Format below.

RestrictDates and **RestrictHours** set options in the [Schedule Restrictions](#) tab of *Track Properties*.

RestrictDates={Start Date/Time}-{Finish Date/Time}, where the date/time format is **yyyymmddThhmmss**. The 'T' and the following time is optional and can be excluded. The Start or Finish times can also be excluded.

eg. /settag "RestrictDates=20241201-". A start date of December 1, and no finish date.

/settag "RestrictDates=-20241231T123000". A finish date of December 31 at 12:30pm, and no start date.

RestrictHours={day#}{first hour}{last hour}, where day# is a number 1=Monday..7=Sunday, 0 = All Days. The first and last hours are 2 digits in 24 hour format (00-23), or use '99' in the first and last hours to disable the selected day of the week. Multiple days can have different hours set in the same command separated by a comma. Setting 2 ranges on the same day is not supported.

eg. /settag "RestrictHours=11217". Enable Hours 12pm through 5pm for Monday and disable all other hours. All other days are left untouched.

/settag "RestrictHours=20611,40611,79999". Enable Hours 6am through 11am for Tuesday and Thursday, and disable all Sunday hours.

Edit Menu

The following options are also available from a right-click popup menu attached to the Playlist Viewer.

Append Hour Marker: Append an hour marker to the internal playlist. Use this option only if a manual playlist is being created using *Studio*. At least one *hour marker* must exist before any tracks can be inserted.

Cut, Copy & Paste: Multiple selected tracks may be moved in the playlist viewer via *Cut & Paste*. A track may be copied and pasted to multiple positions. Drag & drop is also available for moving tracks within the *Playlist Viewer*. Files may also be copied and pasted between Studio's playlist viewer and Creator's *Playlist Editor* and *Track List*.

Pasting to a text box, such as a web search engine, will paste the Artist - Title.

Paste from Explorer: Files may be copied from a Windows folder in Windows File Explorer and pasted into the *Playlist Viewer*. Drag & drop from Windows File Explorer is also supported for inserting files.

By default the tracks will be inserted as a *General Track* with a CD icon.. Hold the Ctrl key down during the paste to insert as a Spot; Shift key for a Voice Intro, Shift+Ctrl as a Jingle, and Ctrl+Windows for a Commercial. These also apply to the Alt+P keyboard shortcut for this menu item. eg. Ctrl+Alt+P inserts as a Spot.

De-select: Removes the selection from the selected track so that no tracks are highlighted. This is most useful when using the keyboard shortcuts for appending tracks to the *Playlist Viewer* via the *Insert Track* option above.

Move Up: Move the selected track up the playlist by 1 position. This works only with one individually selected track.

Move Down: Move the selected track down the playlist by 1 position. This works only with one individually selected track.

Randomize All Songs: This function is only available when play is stopped. It randomly changes the position of all songs/category tracks in the playlist viewer, but leaves the spots and other tracks alone.

Set Temporary Cue: Loads the [Set Temporary Cue](#) dialog to set a temporary position to start the selected track from, for this playlist only. The [Track Tool](#) is used to set a permanent cue position.

Search Artist: Loads the [Insert Tracks](#) dialog and performs an automatic search for the artist of the selected track. *Artist Separation* is temporarily disabled for this artist during the search and any tracks inserted.

Replace with Same Artist: The selected tracks will be replaced with a song from the [Search Folders](#) with the same artist, if one is available. Studio's [Track Insert Separation](#) and [Schedule Restrictions](#) are taken into account.

Record Voice Track: Loads the [VT Recorder](#) to record a voice track directly into the playlist viewer. If *StationPlaylist Creator* is installed, it is generally best to use the *Playlist Editor* to record voice tracks in any hour of the day, but this function can be useful for last minute voice tracks or advertisements that need to play shortly.

Tick All/Remaining Tracks: For use in live assist mode. This will tick (check) all the tracks below the selected track. If no track is selected then all tracks will be checked. This is often used by a DJ near the beginning on an hour to plan ahead of time when play will stop for a live announcements. The DJ can uncheck the tracks where play will stop. This assumes the [Stop On Unchecked Tracks](#) option is enabled.

Note: The [*A0 break note code](#) entry can never be checked, so this code may be scheduled in *Creator* to pre-plan when announcements should be spoken by a live DJ.

Untick All/Remaining Tracks: For use in live assist mode. This will uncheck the tracks below the selected track. If no track is selected then all tracks are unchecked.

Change Color: This is available for tracks manually inserted in the playlist viewer, to change the text color.

Change to General Track/General Spot/Voice Intro/Commercial: Audio tracks inserted manually into the playlist viewer may be changed to a different track type. For example, if some commercials were manually inserted accidentally as songs (in green), select the tracks and choose *Change To Commercial*. Timed events and tracks loaded from a playlist cannot be changed.

Set Temporary Cue

This dialog may be loaded from the *Edit menu* or right-click popup menu for a selected track, and used to set a temporary position where Studio will start the selected track from. The cue is set temporarily while the track exists in the Playlist Viewer. Several tracks can have a temporary cue set in advance. The [Track Tool](#) is used to set a permanent cue position.

Note: A [Reload Playlist](#) will lose any temporary cues of all tracks.

There are 2 methods to select the cue position. When the [Track Preview](#) player is enabled in the *General options*, the track may be played to establish the cue position. Alternatively, a specific time may be entered in the *Position* field.

Once the desired position is reached, click Set Cue to set the *Player* position as the *Cue* position. This position may then be tested using the *Test* button, and fine tuned using the arrow buttons.

Position: This may be used for entering a manual position, or a start position for the *Player* in hh:mm:ss format.

Play: (P key) When the [Track Preview](#) player is enabled, this function will be available to play the track. Play will start from where the track was last stopped, or a manual *Position* set above.

Stop: (S) Stops play.

Back 5: (R) Rewinds the play position 5 seconds while playing.

Jump 5: (F) Jumps forward 5 seconds.

Set Cue: (C) Sets the cue position from the player position above, and stops play.

Reset: (U) Restores the original Cue position before any changes.

Test: (T) Test play from the cue position.

Arrows: (Left/Right keys) Add or subtract 100 milliseconds from the cue position.

OK: Closes the dialog and sets the cue position in the *Playlist Viewer* for the track.

VT Recorder

VT Recorder may be used to record voice tracks in between tracks in the *Studio Playlist Viewer*, or in the *Playlist Editor* in *StationPlaylist Creator*. The previous song and the selected (next) song is also optionally loaded to enable listening to the outgoing and incoming songs while recording the VT to emulate announcing a live show.

A second soundcard will be required if Studio is currently playing.

The filename of the voice track will be set automatically based on [VT Filename Format](#) on Page 2 or the *Advanced* options. Ensure this is set to either a ogg, mp3, or wav file extension. Ogg Vorbis is similar to MP3 but provides better sound quality at smaller file sizes.

Operation has been made as simple as possible where only one *Start* button or keyboard key is used to start each action in the VT recording process.

VT/Song Overlap

This setting determines what actions are available.

Automatic: With this option selected, the only colored section will be *VT Recorder* in green. The Start button will only display *Start Recording*, *Stop Recording*, and *Save & Exit*.

Voice track / song intro overlapping will be automated by *Studio*. This can sound very close to manual voice tracking with the voice track overlapping the outgoing/incoming songs based on preset intro and/or outro times set on songs in the [Track Tool](#). If no intro or outro times are set on the incoming/outgoing tracks, this option works identically to *No Overlap* below. With the other options below, song intro/outro times on songs are not required and will be ignored.

Manual Outgoing/Incoming: Select this option to talk over the end of the previous song and also the start of the next song. When selected, the *Outgoing Track* and *Incoming Track* sections will be colored pink and yellow. The Start button will display in this order *Start Outgoing*, *Start Recording*, *Start Incoming*, *Stop Recording*, and *Save & Exit*.

Manual Outgoing Only: Select this option to only talk over the end of the outgoing song. The next track will start when the voice track finishes. Only the *Outgoing Track* and *VT Recorder* sections will be colored. The Start button will display in this order *Start Outgoing*, *Start Recording*, *Stop Recording*, and *Save & Exit*.

Manual Incoming Only: Select this option to only talk over the start of the incoming song. The VT will start when the outgoing track reaches the Segue position. If the outgoing track has audio after the Segue position, such as a fading song, this audio will be heard under the VT when it starts. Only the *Incoming Track* section will be colored. The Start button will display in this order *Start Incoming*, *Start Recording*, *Stop Recording*, and *Save & Exit*.

Hint: Double-click the Start button to start VT recording and the incoming track at close to the same time.

No Overlap: Select this option to record a voice track that will not overlap the outgoing or incoming tracks, such as a voiced commercial. Any intro or outro times on the incoming/outgoing tracks will be ignored. The only colored section will be *VT Recorder* in green. The Start button will only display *Start Recording*, *Stop Recording*, and *Save & Exit*.

Actions

Start Outgoing: Starts the outgoing track playing from near the end of the track based on the *Play Outgoing Track* time set in the options below. This is available when *VT/Song Overlap* is set to *Manual Outgoing/Incoming* or *Manual Outgoing Only*.

The Outgoing Track appears pink in color when enabled and shows the filename, the remaining time to play to the [Segue](#) position, and an Offset. The Offset will be set automatically to the remaining time of the song when *Start Recording* is activated. The Offset can be manually adjusted for previewing.

While the outgoing track is playing, the left/right arrow buttons will skip the track 5 seconds back or forward.

Start Recording: Starts recording audio from the *Audio Input Device* set in the options. The green *VT Recorder* section displays the generated VT filename and recording time.

Start Incoming: Starts the incoming track playing. This is available when *VT/Song Overlap* is set to *Manual Outgoing/Incoming* or *Manual Incoming Only*.

The Incoming Track appears in yellow when enabled and shows the filename, elapsed time, and an Offset. The Offset is set automatically and represents the start position of the VT in relation to the start of the incoming song.

With *Manual Outgoing/Incoming* selected, the Offset is a negative time as the VT starts before the incoming song. With *Manual Incoming Only* selected, the Offset is a positive time as the VT starts after the incoming song.

The Offset can be manually adjusted for previewing.

Stop Recording: Stops recording the voice track. Any incoming/outgoing track playing will be faded out. At this stage a Preview may be done and the Offsets adjusted if required.

Save & Exit: When happy with the results, select this action to store the voice track and offsets and insert in the playlist.

Music Bed

A music bed may be selected from the drop down menu and played under a voice track if the outgoing song finishes early and it is too early to start the incoming song. A folder containing music beds is configured in the [Options](#) below.

When a bed is selected, and a VT will be recorded/played over an outgoing song, the *Start* button will show *Start Music Bed* after the outgoing song has reached its segue position. The bed will fade out when recording finishes or when *Start Incoming* is selected.

The music bed audio is mixed together with the microphone audio into the voice track file.

Buttons/Shortcuts

Start: Activates the next action. The actions available depend on the *VT/Song Overlap* option described above. The button label changes to describe the next action.

The same button or key press is used to start each action. The key shortcut can be configured in the options below.

Preview (P): Preview the voice track, including the outgoing and incoming songs if applicable. This emulates what it will sound like when played in *Studio*.

Pause (U): During a recording process, the outgoing track, incoming track, and VT recording processes will be paused. While previewing, will pause playback. Press again to unpaue.

Stop (S): While recording process, will stop recording and reset ready to start again. Any recorded voice track will still be available for previewing and manual Offset adjustments. While previewing, will stop playback.

Clear (Del): Delete the recording and reset ready to start again.

Save (X): This will stop recording (if recording), save the recorded voice track, and exit. This is not normally used, as the main Start button is generally used to execute all the actions which includes *Save & Exit*. However, it may be used after adjusting the Offsets after a Preview, or to skip playing the incoming track.

If an incoming track was to be played next, the Offset will be left at whatever it was set to. A zero Offset will prevent the VT overlapping the incoming song.

Options (O): Displays the *Options* window (below).

Help (F1): Displays the documentation.

Carts (1 & 2 keys): *Cart 1* and *Cart 2* may be used to play/record a sound effect, for example. The cart audio is mixed together with the microphone audio into the voice track file. The 2 cart files are selected in the *Options* below, or by right-clicking each Cart button. A cart that is playing may be stopped by clicking the same Cart button again.

Up/Down Arrows: The Ctrl Up/Down arrow keys on the keyboard will adjust the *Outgoing Song Offset* value. Shift Up/Down arrow keys will adjust the *Incoming Song Offset* value.

Options

Start shortcut key: The Start button shortcut may be set to *Enter* or *Space*.

Ignore 0 Intro on Incoming Tracks: When unchecked and the incoming track has an Intro Time of 0.0 set, which means the vocals start immediately and voice tracks should not overlap, the *VT/Song Overlap* option above will automatically change to *Outgoing Only* if it is usually set to *Outgoing/Incoming*.

When checked, an Intro Time of 0.0 will be ignored and leave *Outgoing/Incoming* set. This may be necessary to force a music bed to fade out over the incoming song.

Audio Output: Controls the playback.

- **Device:** Select the DirectSound output device (soundcard) used for the Outgoing/Incoming tracks and Preview.
- **Buffer Size:** The size of the DirectSound audio buffer. The default of 500ms is recommended for most PC's. Fast modern computers may handle a smaller buffer down to 200ms. Slow PC's or PC's with high CPU utilization may require a larger buffer. The maximum is 2000ms.
A buffer too small may result in small pauses or stuttering in the audio. A large buffer will result in higher latency.
- **Volume Fade Simulation:** Simulates the volume reduction of the Outgoing/Incoming tracks that will occur in *Studio* when the voice track is playing. *Studio* will use it's own [Volume Reduction](#) setting.
- **Play Outgoing Track:** The outgoing track will start playing this number of seconds before the segue position near end of the track. The default is 20 seconds.
- **Use ReplayGain:** When checked, all tracks with ReplayGain information in the file tag will have the volume of the outgoing and incoming songs adjusted during playback in *VT Recorder* to provide a more consistent audio volume for the DJ. The [Track Tool](#) supports a Gain Scan to calculate the average loudness of each track. This does not adjust the playback volume in *StationPlaylist Studio* unless it also has *Use ReplayGain* enabled.

Music Bed: See the Music Bed section above for more details.

- **Folder:** Select a folder containing music beds. The sample rate of the music bed files needs to match the sample rate of the *Audio Input* selection below, otherwise a warning will be displayed. Only 16-bit audio files are supported. If a *Mono* option is selected in the *Audio Input* options below, the music bed tracks can be stereo or mono. If a *Stereo* option is selected, the music beds need to be stereo.
- **Volume:** The volume of the music bed will be reduced by the selected decibal setting when played.

Carts: Filenames may be selected here for the 2 Cart buttons, as discussed in the Carts section above.

Audio Input: Controls the VT recording.

- **Sample Rate:** A sample rate of 44100 or 48000 may be selected.

Note 1: Only use 48000 if your mixer or soundcard does not support 44100, or most of your music files are sampled at 48000.

Note 2: The DSP plugins Tomass Limiter and Sound Solution only support a 44100 sample rate.

- **Device:** Select the audio input device (soundcard) to record from, often named *Microphone* or *Line-In*.
- **Mixer (Windows XP only):** Select the recording mixer on the input device. This is often *Microphone*, *Line In*, or similar.
- **Volume:** Adjust the volume until the VU meter on the main window is just touching the red area very rarely. If the entire red area is fully lit at any stage, clipping of the audio will occur which results in distortion.

This setting may not work with some soundcard drivers. In this case use the *Windows Mixer* (below) to set the recording volume.

Note: Volume adjustments should be done with no DSP selected.

- **Store Mixer Settings:** When checked, the *Mixer* and *Volume* settings above are stored, and the *Device* will be set to these settings next time the recorder is loaded. When unchecked, the current settings will be read from the *Device* when the recorder is loaded.
- **Channels:**
 - Left/Right Mono:* Produces a mono file containing the left and right mic channels mixed together.
 - Left Only Mono:* Produces a mono file containing only the left mic channel.
 - Left Only Stereo:* Produces a stereo file with the left mic channel duplicated

in the right. This is only useful when using stereo music beds.

Stereo: produces a stereo file. Use this when dual microphones are in use providing a stereo signal.

- **Bitrate:** When recording an Ogg or MP3 file, the bitrate affects the sound quality and size of the resulting file. For a mono recording, a bitrate of 96kbps for Ogg and 128kbps for MP3 is usually more than adequate for voice tracks. Large bitrates should not be used with *Remote Voice Tracker* due to slow upload times.
- **Digital Signal Processor:** A Winamp compatible DSP plugin may be used to process the microphone audio as it is recorded. It does not affect the audio output of the incoming/outgoing tracks. The included *Tomass Limiter* is a free 3rd party compressor/limiter which will boost low volumes to keep the voice volume reasonably consistent. Other DSP plugins may be copied to the *StationPlaylist\Engine\Plugins* folder.
- **Remove last 500ms:** When checked, will not include the last roughly 500ms of the recorded voice track. This may be useful to remove the noise of the last key press or mouse click while recording.

Windows Mixer: Opens the Windows "Recording Devices" dialog.

View Menu

Options: Display the [Options](#) window. Playback may still be controlled on the main window when the *Options* window is open.

Insert Tracks (also the *Insert* button on the main window): Toggles the [Insert Tracks](#) dialog open and closed. This window may remain open indefinitely if desired and the main window may still be used for controlling playback. This dialog may be used to insert tracks from the hard drive, or search for tracks using various criteria. See the [Insert Tracks](#) operations chapter.

Tracks may also be inserted by dragging audio files from a Windows folder onto the *Playlist Viewer*. By default, tracks are inserted as *General Tracks* . Hold the Ctrl key down during the drop to insert as *General Spots* , or the Shift key to insert as a *Voice Track / Song Intro* .

Listener Stats: Toggles the *Listener Statistics* window from open to closed. This is useful for stations streaming on the internet. The window shows a duplication of the details on the [Listener Statistics](#) options page.

Listener Requests: Toggles the [Listener Requests](#) dialog from open to closed. Requests may be made via a website script, or added manually from the Insert Tracks dialog.

Video Window: Toggles the [Video Window](#) from open to closed. By default, the *Video Window* will appear when a video starts playing, and close when play is stopped or an audio file starts playing. This behaviour and other options may be changed via a right-click popup menu.

Track Tool: Loads the [Track Tool](#) program used to establish Intro times and/or manual cue and segue positions for individual tracks by listening to each track with an alternative soundcard. Unlike the [Load in Track Tool](#) option on the *File menu* and right-click popup menu, this option loads the [Track Tool](#) with no file loaded.

Playlist Editor: If *StationPlaylist Creator* is installed to the same folder as *Studio*, this option may be used for editing playlists and voice tracking. If editing playlists loaded in Studio, use the [Reload Playlist](#) option on the *File menu* to load the changes into *Studio*.

This option may be disabled by enabling [Restricted File Access](#) on the *Advanced options* tab.

SPL Recorder: Loads [SPL Recorder](#), a non-visual audio recorder, which may be used to manually record from the soundcard direct to a file in Ogg Vorbis or WAV formats. Optional DSP processing may be applied during the recording.

Manual Now Playing: Displays a window to enter Artist, Title, Album, Year, Duration, and other track information and activate the Now Playing system to send metadata etc. It also updates the Played Log for music reporting requirements. It is designed for the situation where an operator is playing a song external from Studio, such as from a CD player or turntable. The minimum information required is Artist, Title, and Duration.

Played Log: All tracks played and other information is written to a daily log file. See the [Logging](#) chapter for more details. Select this item to load the [Log Viewer](#) to view today's or past log files.

Scroll to Current Track (*Home key*): When *Studio* is playing, this function will scroll the *Playlist Viewer* to show the current track playing. When *Studio* is not playing, it will scroll to show the track scheduled to be playing at the current time. This scheduled track appears with a shaded color.

This is done automatically as each track starts when [Auto Scroll at track change](#) is enabled on the *General options* tab.

Scroll to Next Hour (*End key*): Scrolls the *Playlist Viewer* to show the end of the current hour and start of the next hour. Selecting this function repeatedly will move down each hour if more than 1 hour is loaded.

Change User: Change the Studio user name that appears in the window title, and also load user-defined carts. Each user / DJ may have his own set of [Carts](#) and [User Options](#).

Note: When [User is Windows Logon name](#) is enabled in the *Advanced* options, the *Studio User* is set permanently to the current Windows logon name and cannot be changed.

A dialog appears where a new name may be entered, or an existing name selected from the drop-down list. The *Delete* button will delete the selected user.

Selecting *Default User* will display the software registration name in the window title.

The user name is limited to 45 characters. The *Standard* edition of *Studio* supports only 2 users. The *Pro* edition supports an unlimited number of users.

When [Individual User Options](#) is enabled in the *General* options, each *User* can set their own personal [User options](#).

A user may also be changed within the playlist via [Break Note Code](#) for automation purposes (Pro edition only).

The current user name may be output to a website via the [Now Playing](#) feature.

The user name may be used as a subfolder for several folder settings, including [Time & Temperature](#) announcements, [VT Replacements](#), and [Request Intros](#), to have different DJ's voices at different times of the day. This can be useful for emulating a live show, particularly a voice tracked show.

A *User* button appears in the main window if the [Line-In button](#) is disabled.

Listener Requests *(dialog)*

This dialog may be loaded from the [View menu](#).

Requests may be made via a website script, or added manually from the [Insert Tracks](#) dialog. The requested songs may be inserted into the *Playlist Viewer* manually during a live show, or automatically via a [*Request break note code](#) scheduled in the playlist. See the [TCP communications](#) chapter for more information regarding website integration.

Request List: This displays the current requests that have not yet been inserted. When using the break note code, attempts to insert a request are made from the top of the list. If a requested track cannot be inserted due to [Song & Artist Separation](#) or [Schedule Restrictions](#), an attempt is made with the next request down the list. [Track Information Popup](#) is available by hovering the mouse over a track icon. Individual or multiple requests may be selected/highlighted for the following functions.

Preview: Plays the selected request in the [Preview Player](#).

Copy: Copies the selected tracks to the clipboard. These may be pasted directly to Studio's *Playlist Viewer* or Creator's *Playlist Editor* or *Track List*. Pasting to a text box, such as a web search engine, will paste the Artist - Title.

Delete: Deletes the selected requests.

Hold: Toggles requests between held and active. A request that is held will display "Held" in the website script and will not be inserted automatically using the break note code, but can be inserted manually.

To Top: Moves the selected requests to the top of the list so they will be inserted earlier, if possible.

Insert: Inserts the selected requests into the Studio playlist viewer above the selected track. If no track is selected, the requests are appended to the end.

Popup when request is made: When checked, this dialog will appear when a request is made.

Stay On Top: When checked, the dialog will remain visible and stay on top of all non-*Stay On Top* Studio windows.

Video Window

Please note, video playback utilizes an old and outdated Windows MCI API and not supported any longer.

By default, the *Video Window* will appear when a video starts playing, and close when play is stopped or an audio file starts playing. This behaviour and other options may be changed via a right-click popup menu described below. The *Video Window* may also be opened from Studio's [View menu](#).

Still images may also be loaded into the *Video Window* using [break note codes](#) scheduled in the playlist.

Right-click the *Video Window* to view the following menu items.

Full Screen (toggle): Toggles between a resizable window and full screen. In a multiple monitor environment, the full screen view will appear on the monitor the window is closest to.

Resizing (radio selection):

- **No Resizing:** The window size and video size does not change automatically.
- **Resize Window to fit Video:** The window is resized to fit the size of the video image currently playing. Manual resizing of the window is disabled.
- **Resize Video to fit Window:** The video image is resized to fit the current size of the window. The video image will be stretched larger or smaller as the window is manually resized.

Stretch Still Image (toggle): Still images may be loaded into the *Video Window* via a [break note code](#), which is visible when no video is playing. When enabled, the image will be resized to fit the current window size. When disabled, the image will be centred in the window.

Show Video Window at Startup: When enabled, the *Video Window* will appear when *Studio* loads.

Show Video Window when video starts: When enabled, the window will appear when a video starts playing.

Hide Video Window when video stops: The window is closed when play is stopped or when an audio file starts playing.

Hide Mouse Pointer when Video Playing: Prevents the mouse pointer being visible over the video.

Stay On Top: The *Video Window* will stay on top of other windows on the monitor. This will not work with the Studio window if it is also set to [Stay On Top](#).

File Scan

This dialog in the [Track Tool](#) will automatically calculate Cue, Overlap, and Segue positions of all or selected tracks. This is done by scanning each file and comparing the volume in the file with the DB settings, and storing the results in the SPL file tag of each file.

This is what *Studio* does on the fly when playing a track for the first time. See [Crossfading](#). However, it may be useful to set the volume parameters to different settings for different genres or tempos of music, or disable crossfading on certain spots or jingles.

All tracks scanned will be given a *Fixed Crossfade* status which will prevent *Studio* from automatically calculating the crossfade settings and overwriting them.

Scanning for volumes can take a few seconds for each track and may take several minutes to scan several thousand tracks. Switching all tracks to automatic, or disabling crossfading, does not require file scanning and this will execute very quickly.

Unchecked the checkboxes of individual settings to prevent this value being calculated. This may be useful if a manual setting has been set on these tracks.

[Command-line parameters](#) are available for the File Scan facility.

Scan:

- **All Loaded Tracks:** All the tracks loaded into the track list will be scanned.
- **Selected Tracks Only:** Only the tracks that have been selected (highlighted) in the track list will be scanned.

Switch all tracks to Automatic Crossfade: When checked, removes the *Fixed Crossfade* status when Start is executed. *Studio* will recalculate these positions when it next plays the track.

Include tracks with Fixed Crossfade (already scanned): When checked, all files will be scanned. When unchecked, only files that do not already have *Fixed Crossfade* status will be scanned and modified. This includes tracks that have been set to a *Fixed Crossfade* in the *Track Tool* or [Track Properties](#).

Disable Crossfading: When checked, all files will be set to a *Fixed Crossfade* and all settings set to zero. The tracks will be play from start to end including any silence and without any crossfade overlapping from other tracks.

Fast Scan Method: When checked, seeking is used to jump position near the end of the file to start scanning the audio data to calculate a *Segue* position. This is much faster but can be inaccurate for some lossy audio files, particularly variable bitrate (VBR) MP3 files. When unchecked, the entire file is decoded to PCM to enable 100% accurate calculation of the *Segue* position. This will take much longer to process multiple files.

Cue at: The position where *Studio* will start playing the track from. It is calculated at the position where the volume first exceeds the specified DB value. The default setting is designed to remove all silence and very low volumes at the start of the track. Increase this to -24db, for example, to skip over any low volume audio at the start of the track.

Segue at: The position near the end of the track where the crossfade should begin with the next track. It is calculated at the position where the last peak volume exceeds the specified DB value. The length of the crossfade is specified by the *Overlap* duration.

When using a compressor/limiter sound processor with an automatic gain control (AGC), the *Segue DB* often needs to be much lower depending on the gain of the AGC. A 25db gain may require a *Segue* of around -21db to provide a more natural crossfade.

The actual play time of the track is *Segue* - *Cue*.

Use Audio Gain: Use the Audio Gain set for each track, set via the [Gain Scan](#) feature or in [Track Properties](#). This option is ignored and effectively enabled for any track with *Force Gain* enabled in *Track Properties*.

Overlap to: The previous track is allowed to overlap up to this position in the track during crossfading. It is calculated at the position where the volume first exceeds the specified DB value. Songs that start with a low volume will be overlapped longer than those which start at a high volume. Generally this option should be higher (less negative) than the *Segue DB*.

Min Overlap: Specifies the minimum *Overlap* duration allowed. Short overlaps can sound too abrupt, so this option forces the *Overlap* to a minimum value to force a minimum crossfade period. Roughly half the specified duration of overlap is actually noticeable due to fading, so the default of 2.5 seconds may provide only 1 second of noticeable crossfade mixing.

Max Overlap: Specifies the maximum allowed crossfade overlap duration. This will override the *Overlap* setting calculated for a track if it exceeds this value. This will generally only affect tracks that have an extended period of low volume at the start of the track. The default of 8 seconds should provide enough protection to prevent excessive overlap mixing for these low volume tracks.

Set Defaults: Sets all settings to default.

Start (button): Start scanning the tracks.

Gain Scan

This feature in the [Track Tool](#) will calculate the average loudness of all or selected tracks, and set a *ReplayGain* file tag. *StationPlaylist Studio* and several other media players can read this tag and adjust the volume so each track averages the same volume during playback. In Studio this is enabled in the Input options.

Note: Gain Scan uses 3rd party code which is not compatible with Windows XP.

Scanning each track can take a few seconds and may take several minutes to scan several thousand tracks.

For more details, see http://wiki.hydrogenaud.io/index.php?title=ReplayGain_2.0_specification

A [command-line parameter](#) is available for the Gain Scan feature.

Scan:

- All Loaded Tracks: All the tracks loaded into the track list will be scanned.
- Selected Tracks Only: Only the tracks that have been selected (highlighted) in the track list will be scanned.

Remove Gain: When checked, removes the *ReplayGain* tags from the files when *Start* is executed.

Include tracks with Audio Gain: When checked, files that already have an *Audio Gain* calculated will be scanned again. When unchecked, only files that do not already have an *Audio Gain* calculated will be scanned and modified.

Show Clipping Warnings: When checked, a warning message will appear with an option to cancel the scan, if any tracks cannot be given the selected average loudness because it will cause parts of the track to go above 100% volume. The average loudness will be automatically reduced to prevent clipping, therefore reducing the average loudness for this particular track. In this situation it is better to use a lower average loudness setting for all tracks.

Normalize Loudness to: *ReplayGain 2.0*, *EBU R128* (Europe broadcast standard), or *ATSC A/85* (US broadcast standard) may be selected to define what the standard loudness output should be. Use the same setting for all tracks.

A Custom value of 0db will effectively normalize the tracks so the peak volume is at 100%, with no regard to the average loudness.

Start (button): Start scanning the tracks.

SPL Recorder

This is a simple non-visual audio recorder which may be used to record audio from the soundcard direct to an audio file on the hard drive. It supports creating files in Ogg Vorbis, MP3, or WAV file formats. Ogg Vorbis is similar to MP3 except it provides better sound quality at smaller file sizes.

The filename will be prompted when the *Record* function is executed. A Save dialog will appear to select the destination folder and filename. As soon as the filename is saved, recording will start immediately.

The usual application to record voice tracks is [VT Recorder](#).

[Command-line parameters](#) are available below.

Operation

Record (R): A Save dialog will appear to select the destination folder and filename. Recording will start immediately the filename is saved.

Stop (S): Stop recording or playback. The *Save* button may be used instead to stop recording.

Save (X): Stop recording (if recording) and finalize the recorded audio file.

Play (P): Play the recording.

Clear (Del): Delete the recording,

Configuration (C): Displays the *Configuration Settings* window.

Intro Override (F2): Sets an [Intro Time](#) on the recorded voice track equal to the Elapsed time as a negative value. If the following track is a song and has an *Intro Time* set, the song will attempt to start at the position the key was pressed while recording. Clicking on the Elapsed Time counter also executes this function.

Configuration Settings

Sample Rate: A sample rate of 44100 or 48000 may be selected.

Note 1: Only use 48000 if your mixer or soundcard does not support 44100, or most of your music files are sampled at 48000.

Note 2: The DSP plugins Sound Solution and Tomass Limiter only support a 44100 sample rate.

Device: Select the audio input device (soundcard) to record from.

Mixer: Select the recording mixer on the input device. This is usually *Line In*, *Microphone*, or similar.

Volume: Adjust the volume until the VU meter is just touching the red area very rarely. If the entire red area is fully lit at any stage, clipping of the audio will occur which results in distortion.

This setting may not work with some soundcard drivers. In this case use the *Windows Mixer* (below) to set the recording volume.

Note: Volume adjustments should be done with no DSP selected.

Store Mixer Settings: When checked, the *Mixer* and *Volume* settings above are stored, and the *Device* will be set to these settings next time the recorder is loaded. When unchecked, the current settings will be read from the *Device* when the recorder is loaded.

Channels: Select *Left/Right Mono*, *Left Only Mono*, or *Stereo*. One of the Mono options should be selected for vocal recordings unless you are using dual microphones providing a stereo vocal signal.

Bitrate: When recording an Ogg or MP3 file, the bitrate affects the sound quality and size of the resulting file. For a mono recording, a bitrate of 96kbps for Ogg and 128kbps for MP3 is usually more than adequate for voice tracks.

Digital Signal Processor: A Winamp compatible DSP plugin may be used to process the audio as it is recorded. The included *Tomass Limiter* is a free 3rd party compressor/limiter which will boost low volumes. Other DSP plugins may be copied to the *StationPlaylist\Engine\Plugins* folder.

Scan for silence: When saving the recording, the track will set Cue and Segue positions so *StationPlaylist Studio* will not play any near silence recorded before or after the recorded voice track. The *Silence db* setting determines the volume that is regarded as silence. Increase the volume (less negative) for noisy rooms or mics.

Player Config: Opens the *Preview Player* configuration window to select the output sound device.

Windows Mixer: Opens the Windows Recording Devices dialog.

Command-line Parameters

SPL Recorder can be loaded with parameters to automatically start recording.

SPLRecorder.exe {filename} /r[xx]

/r = Start recording.

[xx] = optional length of time in seconds to record. When the time is reached, the program will terminate.

eg. SPLRecorder.exe C:\test.mp3 /r (record until manually stopped)

eg. SPLRecorder.exe C:\test.mp3 /r[120] (record for 120 seconds and terminate)

Log Viewer

All tracks played and other information is written to a daily Played Log file. See the [Logging](#) chapter for more details.

The viewer is available from the [View menu](#) and also when the flashing [Error Button](#) appears.

The *Log Viewer* can display 1 or more days of logs together, with filters available to show specific types of tracks, such as only songs and spots, or just errors, for example.

Different types of log entries are displayed in different colors based on the Track Type column. The columns included are as follows.

Played Date, Played Time, User, Track Type, Artist, Title, Duration, Category, Filename, Client, Album, Year, Composer, Conductor, Record Label, ISRC, Listeners (to online streams), Scheduled Date/Time.

For *Information* and *Error* entries (Track Types 8,9), most of the information is included in the Artist and Title fields.

Each column is resizable to display more information by dragging the column divider. However, hover the mouse over a field to see the full description.

The status bar displays the number of items in the list and the total **performances** when streaming on the internet. *Performances* is the number of listeners to each song, and is required by SoundExchange. Also shown is **total song time** which is the number of hours that songs played for the selected date range. This is required by some countries music reporting agencies.

Buttons

Search: (F3) Enter text to search and click the search button. Ctrl+F or [F3] keys may be used to find the next occurrence.

From/To: Select a date range to display log entries for several days. The maximum date range that may be selected is 366 days.

Previous/Next Day buttons: (Ctrl+Left/Right) Decrements or increments the *From* and *To* dates by 1 day and loads the log for this day.

Filter: Displays only log entries that contain the entered text. Press *Enter* to execute a *Refresh*.

Refresh: (F5) Reloads the log file.

Last Error: (Ctrl+E) Jumps to the last error in the log being viewed, if one exists. You may need to change the From date to select more days before clicking *Last Error*. If no error is found, this function will jump to the end of the log.

Other Keys: The usual windows keys are available such Up/Down/Left/Right arrows to scroll vertically and horizontally, Home/End to jump to the top/bottom of the log.

Checkboxes: Check or uncheck the checkboxes to display the log entries for only the selected track types. Most checkboxes are obvious except perhaps the following.

Summarize: List each track just once with the number of times it appears in the log. This can show how many times specific tracks played during the selected date range. When only *Summarize* and *Songs* are checked, and optionally *Sort by Count* below, the right-click menu items *Copy* and *Write to CSV File* will format the song information suitable for music reporting agencies.

Sort by Count: This checkbox is only visible when *Summarize* is checked. The summarized list will be sorted by the *Count* column with the track with the highest *Count* listed at the top.

Right-click Menu

Copy: (Ctrl+C) Copies the select log entries to the Windows clipboard for pasting into another application.

Write All to CSV File: (Ctrl+W) Writes all the log entries to a CSV File.

Write Selected to CSV File: (Ctrl+S) Writes the selected log entries to a CSV File.

Select All: (Ctrl+A) Selects all loaded log entries.

Last Error: (Ctrl+E) Same as button above.

Controls Menu

Some of these functions are also available as large buttons on the main window and the right-click popup menu. The keyboard shortcuts for some of these functions may be customized using the [Keyboard Controls Options](#).

Play: If one or more tracks is checked in live assistance mode, the first checked track will start playing. Otherwise, the highlighted/selected track will start playing, or the next track in the playlist, depending on the settings [Play function is Skip Next](#) and [Auto-check Unchecked Track](#).

At default settings, a track currently playing will be faded out over a short period based on the [Truncation](#) settings. However, in separate channel output mode, Studio will not artificially fade the current track when another track has started.

See the Live Assistance and Mode section in the [Playing Tracks](#) operation chapter for more details.

Stop: When not using [Manual Fading Mode](#), the current track playing in the main player will be faded out over approximately 2 seconds. Automate will also be turned off if it is on.

In [Manual Fading Mode](#), if 2 tracks are currently playing, only the first one will be stopped with a quick fade.

The *Stop* function does not affect a cart playing in the cart player.

Automate: Toggles between *Automation* & *Live Assistance* modes. When a track is not currently playing, turning *Automate* on will also start play with the selected track, or if no track is selected, play will start at a calculated position in the playlist based on the current time.

Turning *Automate* off while a track is playing will stop play after the current track has finished, providing no tracks have been pre-loaded or checked (ticked).

Pause: Pause playback of the *Main Player*. Select *Pause* again to continue playback. The Voice Track and Cart players are not affected.

With the [Use Mixer](#) checkbox unchecked, the pause occurs instantly. With the *Use Mixer* option checked, the pause will be delayed by the length of the output [Buffer Size](#) (500ms default).

Instant Stop: Stops all audio instantly with no fade. This affects all players including *Mic Input* and *Line Input*. *Automate* will also be turned off if it is on.

Play Selected Track: This function is identical to double-clicking a track if [Double-click plays in Main Player](#) is selected. It will play the selected track and override the usual *Play* button rules, including if another track checkbox is checked, or if the option [Play function is Skip Next](#) is enabled.

Overlap Play (Pro Version): The checked or selected track will start playing without fading the current track playing. This may be used to start the next song while the end of the current song is fading naturally, and no additional fading is required. This option is only available when the remaining time of the current track playing is less than the duration of the selected track.

This function is also available by right-clicking the *Play* button on the main window.

Overlap Next (Pro Version): Similar to *Overlap Play* above, this function will start the next track without fading the current track playing. This option is only available when the remaining time of the current track playing is less than the duration of the next track.

Next Track: If *Studio* is playing, the current track will be faded and the next track will start playing. If *Studio* is not playing, this function will act the same as the down arrow key.

Skip to Next Hour: If *Studio* is playing, the current track will be faded and the track after the next Hour Marker will start playing. If *Studio* is not playing, the next Hour Marker will be highlighted ready to start play manually.

Restart Track: If *Studio* is playing, the current track will restart from the beginning.

Play End of Track: Starts play near the end of the selected track, 8 seconds before the segue position. If no track is selected, the current playing track will jump near the end. This may be used for testing crossfades while *Studio* is not being used for broadcasting. See also [Test Mode](#) below.

Mic Input: Toggles open and closed the [Mic Input](#) as configured on the *Input* options tab. It also reduces the volume of the current song playing based on the [MP Volume Reduction](#) options in the *Output* options / *Mic Output* tab.

If the Mic was switched on using *Mic No Fade* below, executing this function will leave the Mic on and the main player will be faded.

Mic (No Fade): This functions the same as *Mic Input* above except it does not reduce the current song volume. This may be useful where the start or end of a song is quiet enough to talk over without reducing the volume.

Right-clicking the *Mic* button on the *Studio* window will also execute this function. The *Mic* button will display an orange light rather than yellow.

If the Mic was switch on using *Mic Input* above with normal fade, executing this function will leave the Mic on, and the main player will fade up to full volume.

Switch Mic Off: Turns the mic off regardless of which function turned it on - *Mic Input* or *Mic (No Fade)*. This should be only useful when *Mic (No fade)* is commonly used.

Line Input: Toggles open and closed the [Line Input](#) as configured on the *Input* options tab.

Audio Monitor: Toggles the [Audio Monitor](#) on and off. This provides audio output excluding the microphone audio for monitoring purposes, when using the *Mic* button. This item may be toggled automatically when toggling the [Mic button](#).

Record to File (Pro Version): Toggles recording audio on & off to an audio file on the hard drive, either from *Studio's* mixer or from a soundcard recording device. This may be used to record a live show for playing at a later time, or for distribution. Before this item is available, the recording parameters need to be configured in the *Output* options / [Record tab](#).

This function may be toggled by a [break note code](#) scheduled in the playlist.

If the recording feature is disabled but *Create Cue Sheet* is enabled in the [Record options](#), this menu item is replaced with a **Create Cue Sheet** toggle.

Mute: Toggles audio output on and off. This will mute the audio output to the soundcard only. DSP's, stream encoders, and the [Recording](#) facility will not be affected when recording from *Studio's* DSP.

Disable/Enable Control Keys: Enable or disable the single key shortcuts used on the *Controls Menu*. This may be useful to prevent accidental key presses while in automation mode. This setting is not permanently saved and will revert to enabled when *Studio* is restarted.

Test Mode: Toggles on or off *Test Mode*. This may be useful when using two or more *Studio* installations and one is used for testing or training purposes. When enabled, the entire [Now Playing](#) system including RDS and stream metadata will not be activated, and the [Played History](#) will not be updated for tracks played. The track titles in the colored section at the top of the *Studio* window will appear in strikethrough text. This toggle may also be set via a [*TestMode](#) break note code scheduled in a playlist or Cart.

Lock Studio (Studio Pro): This option is available when a [Master Password](#) has been set in the Advanced Options. This will lock *Studio* from all access until the *Master Password* is entered.

Cart Menus

See [The Cart System](#) chapter for a more detailed description of the cart system.

Carts may also be configured and played via push buttons on the main [Studio window](#) in the Pro edition of Studio.

The Main, Shift, Ctrl and Alt Cart menus all have the following menu options.

Stop Cart: The current playing cart will fadeout over approximately 2 seconds. If a [music bed cart](#) and normal cart are playing simultaneously, only the normal cart will stop. Select *Stop* again to stop the music bed cart.

(cart files list): A list of all non-empty cart slots. Play a cart slot from the menu or press the associated function key.

The user carts keyboard shortcuts are F1 through F12, and the next row on the keyboard, "1" through to "=". Hold the Shift, Ctrl, or Alt button to play a cart from the other 3 banks.

Cart Edit (Toggle): Toggles cart slots into edit or play mode. While in edit mode, all cart slots will become visible on all 4 cart banks. Execute a cart slot and the [Cart Edit](#) window will appear to select the track or tracks to assign to the cart slot.

Cart Insert (Toggle): When toggled on, executing a cart slot will insert the track into the playlist viewer rather than play it in the *Cart Player*. Toggle off again to enable normal cart playback.

Load Carts: Load a previously saved cart bank. Private carts may be loaded but only modified by the owner. Public carts, and private carts you own may also be deleted in the dialog.

Save Carts: Change the privacy status of the loaded cart bank, or create a copy of the loaded cart bank and switch to it. Note this function is not necessary to save any changes to the cart slots. Those changes are automatic.

Help Menu

Studio Help: Display this documentation.

Register: Re-register the software with new license details, such as when upgrading from Standard to Pro.

About: Display the software title, version, and user registration details.

System Tray Popup Menu

Right-click the green satellite icon in the Windows System Tray (notification area) to activate the popup menu with the following items:

Restore: Displays the *Studio* main window. This is equivalent to double-clicking the icon in the system tray.

View Creator Log: Opens the log file created by *Creator* during the last playlist generation.. This file should be checked regularly for selection errors when using the [Auto Playlist Creation](#) option.

Open Creator: Loads *StationPlaylist Creator*. Creator must be installed in the same folder structure as *Studio* for this to function. This item is disabled when the [Restricted File Access](#) option is checked.

Create Playlist Now: Manually activates the [Auto Playlist Creation](#) event to generate a new set of playlists. This item is disabled when the [Restricted File Access](#) option is checked.

Exit: This is equivalent to the *Exit Studio* menu item on the *File menu*. Confirmation is required if *Studio* is playing. *Studio* may also be terminated immediately with no confirmation using the key combination Shift+Ctrl+Alt+X.

Options

The *Options* window is opened by using the [View menu](#). The main player may still be controlled while the *Options* window is open.

Some of the options take effect immediately, and some become active when the options window is closed.

The options are spread over the following pages:

- ▶ [User](#)
- ▶ [General](#)
- ▶ [Advanced](#)
- ▶ [Event Times](#)
- ▶ [Folder Locations](#)
- ▶ [Input](#)
- ▶ [Output](#)
- ▶ [Plugins](#)
- ▶ [Listener Statistics](#)
- ▶ [Now Playing](#)
- ▶ [Time & Temperature](#)
- ▶ [Track Info & Logging](#)
- ▶ [Keyboard Controls](#)
- ▶ [Communications](#)

User Options

These options can be global or individually set per [Studio User](#) depending on the [Individual User Options](#) setting on the *General options* page.

Tick all tracks when playlist loaded: When checked, and a new playlist is loaded while in live assistance mode, all new tracks loaded will be automatically checked (ticked). This is similar to the [Tick All Tracks](#) menu option.

[Break notes](#) with the codes *Z and *A0 cannot be checked. This may be useful to pre-plan when announcements should be spoken by a live DJ in Creator.

Tick tracks on switch to live: When checked, switching off automation will automatically tick the remaining tracks below the track that is playing.

Stop on Unchecked Tracks: When checked and in live assist mode, play will stop when the next sequential item in the playlist is unchecked. Only sequentially checked items will play back to back. This is useful if you wish to plan voice over breaks for the hour in advance. When unchecked, all the checked tracks will play back to back, skipping the unchecked tracks.

Auto-check Unchecked Track: When *Stop on Unchecked Tracks* is checked, and this option is checked, and other tracks in the hour are checked, the track that play stops on is automatically checked, ready to be played with the *Play* button. This prevents accidental skipping of tracks when using the *Stop on Unchecked Tracks* option above.

In most cases when this option is enabled, the following option *Play function is Skip Next* should also be enabled.

Play function is Skip Next: When checked, and while a track is currently playing, the *Play* button will play the next track in the playlist regardless of other checked or highlighted items in the playlist. When this checkbox is unchecked, the *Play* button will play the first checked track, or when none are checked, the last highlighted track.

With this option checked, and when play stops, the next track in sequence will be highlighted after the current track finishes, regardless if another track has been manually selected.

When unchecked, and play stops, any manually selected track will stay selected when the current track finishes. If no tracks are checked, this pre-selected track will play when clicking *Play*. If no other track has been manually selected, the next track in sequence will be selected, ready to press *Play*.

Auto Scroll at track change: Scrolls the *Playlist Viewer* automatically to show the track starting to play. This may be disabled, and the [Scroll to Current Track](#) (Home key) on the View menu may be used manually for this purpose when required.

Start Carts Instantly: When checked, carts will start playing as soon as possible, and will not wait for the [Main Player Volume Reduction](#). Any existing cart playing will also be instantly truncated.

When unchecked, carts will wait for [Main Player Volume Reduction](#) before starting. Also, any existing cart playing will be faded out before the new cart starts.

When the [Use Mixer](#) option is checked, there will be always be a delay based on the length of the output [Buffer Size](#) (500ms default).

Small Buttons: When unchecked, the buttons near the top of the Studio window will appear larger, suitable for touch screens.

Line spacing: When checked, Studio will display a larger gap between each track in the Playlist Viewer. This was added specifically for touch screen operators for more accurate track selection. Uncheck to show more tracks in the window.

Accessibility Mode: When checked, provides more information to screen readers/scripts for the visually impaired. Specifically, the status of the track checkboxes in the *Playlist Viewer* is output in text as checked or unchecked in the first column. Also the [Played Log Viewer](#) enables the arrow keys for navigation rather than scrolling.

Flash Finishing Track: When a track is close to finishing, the track can alternate colors as an indication to the DJ that it is about to finish. The Windows Task Bar will also flash. The default is 5 seconds. Set the option to 0 to disable flashing.

Font Size: The size of the text used in the playlist viewer and most other Windows in *Studio* may be altered to suit. Higher sizes can result in some options being truncated from lack of room. A better solution can be to increase the text size in Windows which will also upscale all Studio's windows and components.

Background Color: Click to change the background color of the main Studio window. This has some limited effect on other windows including the Track Insert and Listener Requests. Select *White* to use Windows default colors. Select *Black* for *Dark Mode*.

To have all Studio's windows appear in a dark mode requires *White* selected, and select *High Contrast* in Windows Settings.

Played Track Color: Click to change the text color of tracks that have played.

Scheduled Position Color: Selects the background color of the track that is scheduled to be playing at the current time.

Time Counters Color: Selects the text color used in for the time counters on the main Studio window. This color is also mixed into the buttons and menus.

VU Meter: This controls the graphical representation of the audio volume output from Studio, as displayed on the main *Studio* window. Audio processor DSP plugins will affect the VU levels.

- **Logarithmic:** This represents the volume as detected by the human ear. The red area starts at -4db. The yellow/green junction is -16db.
- **Linear:** This represents the volume as a voltage level. The yellow/green junction is roughly 50% volume (-6db).

Double-click plays in Player: Double-clicking a track in the playlist viewer will start it playing in the *Preview* player or Studio's *Main Player*, or do nothing. When set to *Main* player, Studio will play the track even if a different track is checked in *Live* mode.

Button 6 is: The 6th button on the main window can be set to be either *Next* to start the next track, or *Pause*.

General Options

Load Studio at Windows Logon: Loads *Studio* automatically when Windows is logged on. This can be useful when power outages occur. Note that Windows can be set to logon automatically when the PC is switched on or rebooted.

When Studio is loading due to this feature, if a script file named *AutoStartup.scp* exists, Studio will execute the script before automation starts. This may be used, for example, to play a required Station Id cart after a power cut or a period of silence as a legal requirement. See the [Communications](#) options regarding scripts.

Visible at Startup: When unchecked, *Studio* will load into the Windows System Tray when loaded.

Auto Load Playlists: Automatically load playlists at program start and every hour. This should generally be checked unless *Studio* is being used without a track scheduler.

Auto Reload Playlists (Studio Pro): Automatically checks if a current playlist loaded in the *Playlist Viewer* has changed, and if so, will reload the playlist so the modifications can take effect. Changes made in the *Playlist Editor* in *StationPlaylist Creator* should take effect within a few seconds.

A reload will be delayed during any of the following conditions.

- Within 8 seconds of the start or end of the current track.
- While a voice track is preloaded or playing.
- While playing a track that was inserted via a [break note code](#), such as *Play or *Dir.
- While the track playing is a duplicate of a track that exists further up the current hours playlist, such as a news or weather file.

This function can also be performed manually in both editions of *Studio* via the [Reload Playlist](#) option on the *File menu*.

Auto Play at Startup: Automatically start playing when *Studio* is loaded. *Auto Load Playlists* must be checked for this option to be available. If no playlists are available, and the option [Insert Top Up Tracks](#) is selected, *Studio* will insert and play random tracks until a playlist is available.

Studio will start playing the track that was scheduled to be playing at the current time. It can start part way through a lengthy track based on [Resume tracks at startup](#) in the *Event Times* options.

Rescan Search Folders at Startup: When checked, the folders entered into the [Search Folders](#) option on the *Folder Locations* page will be scanned for new and removed audio files, when *Studio* is loaded. This can take a few minutes as a background task.

This option may be unchecked when the files in these folders do not change regularly. If changes have been made to the folders, the *Rescan* button can be used next to the [Search Folders](#) option to start a rescan of the folders. A rescan may also be initiated from a popup menu on the [Insert Tracks](#) window.

While *Studio* is rescanning the search folders, the previous set of files will still be available for searching and inserting from the [Insert Tracks](#) window.

Auto Playlist Creation: This option is available when *StationPlaylist Creator* is installed on the same PC and same folder as *Studio*. At default settings, the *Auto Playlist Creation* event occurs 15 minutes before new playlists are required, and the previous playlists expire. This time is based on the *Start Day & Hour* set in *Creator's General options*. When this occurs, *Creator* is loaded, playlists are created based on the currently saved options, and *Creator* is then terminated.

Creation can occur earlier by adjusting the option [Auto Create Playlist](#) in the *Event Times* options.

If *Studio* and *Creator* are installed on separate computers, this same feature is available in a small utility program included with *Creator - StationPlaylist Scheduler*. See *Creator's* documentation for more information.

All *Creator* options should be set correctly before this event is activated. Any selection errors due to excessive repeat intervals are ignored and will result in tracks violating the repeat intervals.

Creator does not need to be left open for this event to occur and should in fact be closed. If *Creator* has been accidentally left open, *Auto Playlist Creation* will load a second instance of *Creator* to generate the playlists. This can cause issues if *Creator* is then closed with the settings and options saved. *Creator* should generally be closed at all times except when modifying the configuration.

Studio will display *Creating Playlists* in the status bar during this process.

If any warnings or errors occur during the playlist generation, an entry will be reported in *Studio's* [Played Log](#), viewable from the View menu, and the *Studio* [Error Button](#) will flash.

Specific errors that occur during creation are stored in the file *Generate.log* which should be checked regularly. [View Creator Log](#) is an option on the *Studio* [system tray popup menu](#).

Mute Audio at Startup: When checked, the [Mute](#) item on the *Controls menu* will be activated when *Studio* is loaded to disable audio output to the soundcard. This may be useful for internet radio stations.

Start Monitor at Startup: When checked, the [Monitor](#) function on the *Controls menu* will be switched on when *Studio* loads. This is generally only useful if the [Monitor Device](#) is set to a different output device to the main output.

Cart Insert at Startup: When checked, the [Cart Insert](#) feature will be activated when *Studio* loads.

Disable Close Button: When checked, the [X] Studio window button is disabled and will do nothing. When unchecked, Studio can either be minimized to the Windows System Tray, or the program terminated depending on the option below.

Close to System Tray: This option has no effect when *Disable Close Button* above is checked. When checked, closing the Studio window ([X] button) will minimize Studio to the Windows System Tray / Notification area. This appears as a green satellite dish icon near the bottom-right of the screen. Double-click to restore, or right-click for a menu.

When unchecked, closing the Studio window will exit the program. This is generally not safe when Studio is used 24 hours a day.

Main Window Stay On Top: When checked will force the main *Studio* window to stay visible on the desktop on top of other applications running. This does not change the behavior of windows within *Studio* such as the Insert and Options dialogs which will appear over the main window.

Disable Cart Keys in Automation: When checked, will prevent carts from being accidentally played using the function key shortcuts while in automation mode. Carts will only be played from the [Cart Menus](#) and [Cart Player](#).

Disable Control Keys in Automation: When checked, the single key shortcut keys in the [Controls menu](#) will be disabled while in automation mode to prevent accidental disruption of play.

Preload File Insert Break Notes: When enabled, several [break note codes](#) that insert files will be executed immediately they are loaded into the *Playlist Viewer*, such as when a playlist loads. These break notes are *Play, *Dir, *C(cart), *Hook, and *T. The break notes *Request, *Time, and *Temp are excluded. This will be useful when using [Attempt Top-of-hour Timing](#) in the Advanced options. When unchecked (default), the codes are executed a few seconds before they are due to play.

Note: If the file or files do not exist at the time of the preload, the break note will not execute and will try again at the time of execution.

Individual User Options: When checked, the options on the [User options](#) page will be stored per [Studio User](#). Each operator may have their own background color, font size, accessibility mode, etc. For these options to be stored per user, the option [Individual User Options](#) must first be enabled in the *General* options. When disabled, the User options are global for all users.

If an [Options Password](#) has been applied, operators can still access the *User options* without a password when *Individual User Options* is enabled.

Start Test Mode at Startup: When checked, [Test Mode](#) in the *Controls menu* will be switched on when Studio loads.

Test Mode disables Auto Load Playlists: When checked, Studio will stop loading playlists when [Test Mode](#) is enabled in the *Controls menu*.

Cart Schedule Restrictions: When checked, each cart track will be tested for valid [Schedule Restrictions](#) before a cart track can play. This will slightly delay the start of cart.

Play Break Note Carts as VT's (Studio Pro): When checked, [Cart Break Notes](#) will be inserted and treated like voice tracks, and play simultaneously with tracks that have been intro-timed. However, the tracks will be played out the [Cart Player](#) and not the VT Player. When unchecked, cart tracks will play sequentially like normal spots in the [Main Player](#).

Play Commercials as VT's (Studio Pro): Tracks scheduled from a Commercial Spot Group, or imported via the *Traffic Log Importer* in *StationPlaylist Creator*, will be treated as if they are voice tracks, which can overlap the song ramp of the following song.

This will also prevent crossfading between commercials since the VT Player does not crossfade between other VT tracks. The option [Crossfade Voice Tracks](#) disabled in the *Input options* will prevent crossfading with other spots and songs that are not intro timed.

Regard VT Unrecorded Hours as Error: When enabled, Studio will produce an error message in the [Played Log](#) file and flash the *Error button* if an hours playlist is loaded that contains VT Markers and no voice tracks have been recorded in the hour. This may be useful when using [Studio Monitor](#) to inform the station manager an hour has not been voice tracked and may need some action.

No Error Button: When unchecked, a button with flashing text will appear on the screen when a playlist error occurs. When

checked, the button will not appear. In either case, the error will be logged in the [Played Log](#) file. Playlist errors include a missing audio file or playlist file.

Tick Timed Events: While in live assistance mode, [timed events](#) are highlighted in orange within 60 seconds of their event time. When this option is enabled, all timed events will also be ticked (checked) in the playlist viewer to ensure they are played when the Play function is next executed.

Unsaved Playlist Warning: When checked, if a playlist has been manually altered and not saved, Studio will display a warning when exiting Studio or [clearing all playlists](#).

Enable Track Preview: When checked will enable the [Track Preview](#) option in the *Playlist Viewer* and also in the *Insert Tracks* dialog. Only check this option when two or more sound devices are installed, and the [Preview Player](#) is configured to use a sound device not being used for normal *Studio* playback. Use the *Configure* button to select the alternative soundcard before use.

Tracks may be previewed in the *Playlist Viewer* using the right-click menu, or double-click when [Double-click plays in Preview Player](#) is selected.

Default Track Colors: Sets the colors for the different track types such as categories/songs, spots, break notes, voice tracks, etc. Note that *StationPlaylist Creator* can override the default colors for each category and spot group.

Select Custom Logo: Sets your own image under the *StationPlaylist* logo at the top right of the main *Studio* window. **JPEG**, **PNG**, **GIF**, and **BMP** formats are supported, preferably in a 1:2.5 ratio (height:width) in size. The image will be stretched or shrunk to fit this area. To remove the image, enter the word **none** into the Filename.

Advanced Options

Page 1

Hour Marker: This determines what happens at the turn of the hour. This option may be controlled via a [Break Note Code](#).

- **Ignore:** Studio will ignore *Hour Markers* and the time of day and play all tracks sequentially. One *Hour Marker* is still required at the top of the playlist before tracks can be inserted. New playlists will be loaded without an hour marker. The exception to this is when the *Hour Marker* is changed to *Ignore* via a [Break Note Code](#). In this case Hour Markers are still inserted but ignored. *Timed Events* require a correct *Hour Marker* to function correctly.
- **Play Next:** When the next hour arrives, the playlist will jump to the next hours playlist after the current track finishes. Remaining unplayed tracks in the hour will be skipped.
- **Instant:** When the computer clock changes to a new hour, the playlist will jump to the next hours playlist immediately. The current track playing will be truncated and faded out. Remaining unplayed tracks in the hour will be skipped.

On Short Hours: With the *Hour Marker* option above set to *Play Next* or *Instant*, this option determines what happens if Studio finishes playing the last track in the hours playlist, but the current computer time has not changed to the next hour.

- **Repeat the last hour:** Studio will jump back to the top of the current hours playlist and start repeating the hours tracks. Studio will start the correct hours playlist once the time changes to the next hour.
- **Insert Top Up Tracks:** Studio will insert a random track to play from one or more folders as specified in the [Top Up Folders](#) on the *Folder Locations* page. If no *Top Up* files are found, Studio will default to repeating the last hour. Studio will start the correct hours playlist once the time changes to the next hour.
- **Start the next hour early:** This item is only available with the *Hour Marker* option set to *Play Next*. This will let Studio start the next hour early regardless of the time. Selecting this option should be avoided unless it is guaranteed most hours are over-scheduled so there is no major time drift. Tracks will still be skipped at the end of an hour if it is over-scheduled. This option will be ignored if there is no playlist available, or an *Instant Timed Event* is scheduled at the top of the next hour.
- **Start early based on next hour:** Studio will only play the next hour early if the next hours playlist is longer than 60 minutes by the amount of the shortfall in the current hours playlist. Otherwise a *Top Up Track* is inserted if available.

Attempt Top-of-hour Timing (*Studio Pro only*): Studio can attempt to finish the last track in the hours playlist precisely at the top of the hour or when the next instant timed event occurs, while in automation mode. Two methods can be used individually or together to help this occur. This is generally only useful when starting hours instantly, such as for joining live network feeds.

The feature will be disabled if the break note codes *Request or *T exist in the current hour. The feature will function with *Cart tracks, *Dir, and *Play break notes if a duration has been applied to the break note (not recommended), or [Preload File Insert Break Notes](#) is enabled (recommended). The feature will function with time and temperature announcement break notes as these are considered to be roughly 2 seconds in duration.

This feature complements the *Last Track Bias* feature in Creator (Advanced options) which can result in scheduled hours very close to 60 minutes, and is recommended when using this feature. A *Last Track Bias* set to -10 (negative 10) is recommended.

- **Song Outro Times:** When enabled, Studio will utilize Outro timed songs to shorten the playlist time. Tracks will segue earlier at a calculated position between the Outro and Segue times. Most songs should be Outro timed using the [Track Tool](#) for this feature to work well.

The *Truncation Threshold* is available when *Auto Speed* below is disabled. This will disable top-of-hour timing using *Song Outro Times* for the remaining tracks in the hour when too much of the last track will be truncated. The default is 30 seconds.

This option may be enabled/disabled via a [Break Note Code](#).

- **Auto Speed:** When enabled, Studio will play category tracks (songs, not spots) slightly faster or slower to gain or lose time.

The Min and Max speed defines the minimum and maximum speed Studio may use, in percentage. Studio will calculate the required speed based on the remaining time, the total duration of remaining songs in the playlist, any *Song Outro Times* set, and the length of the last track it determines will be playing at the top of the hour, or the next instant event time. Maximum values are Min -5 and Max 5. eg. Min -2, Max 3.

If Studio determines that it cannot finish a track precisely on time using the allowed Min and Max speeds and above criteria, Studio will not use *Auto Speed*. The feature is also disabled when the [Hour Marker](#) option is set to *Ignore*.

This option may be enabled/disabled via a [Break Note Code](#) scheduled in the playlist, and other codes are available to change the Min and Max settings if required for different times of the day.

Hook Timings: These times are used for playing Hooks via a *Hook [break note code](#) when a song doesn't have hook timings set in the [Track Tool](#). *Start* specifies the position in the song the hook will start playing from. *Length* specifies the duration the hook for play for.

Track Insert Separation: These settings restrict the insertion of tracks into the *Playlist Viewer* depending on when the same song or same artist has played previously or is scheduled to play in the future.

Song separation uses the [Scheduled/Played History](#) displayed in the *Track Properties*.

Artist separation works by scanning songs currently loaded in the playlist viewer, a specific number of minutes either side of the insert position. Settings which affect how many previous and future tracks exist in the playlist viewer are [Clear Playlists over](#) and [Load New Playlist](#).

The methods of insertion affected are manual drag & drop or copy & paste from a Windows folder, the [Insert Tracks](#) dialog, [Top Up](#) system, [Replace with Same Artist](#), and the [Website Song Requester](#). Set the value to 0 (zero) to disable this feature.

Strict Enforcement: When checked, the prompt to "insert anyway" will not be available when a separation violation has occurred while manually inserting a track. The track will simply not be inserted. It will also prevent the Separation & Restriction Rules option from being unchecked in the [Insert Tracks](#) dialog.

Automation On Ignores selected Track: When checked, and automation is switched on, play will always start at the track scheduled to be playing at the current time. When unchecked, play will start with the first selected/highlighted track. If no track is selected, play starts at the track scheduled to be playing.

Ignore Timed Events: When checked, all timed events scheduled in the playlist will play sequentially in the order they appear in the playlist as if they are not timed. This option may be controlled via a [Break Note Code](#).

Regard Top Up Insertion as Error: When checked, and if a [top up track](#) is inserted due to a short hour, Studio will regard this as an error and flash the [Error button](#).

Allow Spot Interruption: When unchecked, spots playing at the time an *Instant Timed Event* fires will not be interrupted. The spot will be allowed to finish before the timed event plays. Tracks other than spots will always be interrupted by an *Instant Timed Event*. Voice tracks and song intro's/outro's are regarded as spots. [Concurrent Break Note](#) instant timed events will still fire regardless of this option.

Instant events override Play Next: When enabled, if an *Instant Timed Event* or instant *Hour Marker* is due to fire, but there are *Play Next* timed events that have not yet played, Studio will set the *Play Next* events as non-timed and start the instant event. When disabled, Studio will always play all unplayed timed events, which could cause an instant event to start late.

Time Checking: This routine will attempt to prevent scheduled songs from starting for just a few seconds before an instant event. i.e. Instant [Timed Event](#) and Instant [Hour Marker](#). These 2 situations are handled differently.

1. For [Timed Events](#) scheduled throughout the hour, excluding those scheduled for Minute 00:00, a random [Top Up track](#) will be inserted at a change of track if it is determined the next scheduled track will play for less time than the [Song Threshold](#) before the timed event fires. This will not stop a track playing for a few seconds, but in most cases, a shortened Top Up track is better than a shortened scheduled track, particularly when the [Top Up Folder](#) contains only instrumentals.

2. When the [Hour Marker](#) option is set to *Instant*, or a *Timed Event* for Minute 00:00 exists at the top of the next hour, and no [end-of-hour timed events](#) exist, *Time Checking* is more comprehensive and is performed a few minutes (18 default) before the end of the hour. At this time, *Studio* will forecast which track will be playing at the end of the hour and how far through the track it will be.

Two options on the *Event Times Options* control this routine -- [Time Checking](#) interval and [Time Check Song Threshold](#).

If it is determined that the last track in the hour will be playing for less time than the [Song Threshold](#) time (120 seconds default), one category track may be deleted, and one random Top Up inserted in an attempt to play as much of the last track as possible. The playlist will be organized so that the Top Up is the track playing when the hour changes. Songs that have an intro track before it, or outro track after it, will not be deleted.

A Top Up is not inserted if it determines the selected Top Up track is longer than any of the remaining songs in the playlist. This behaviour can be modified by checking the option [Contains Instrumentals](#) on the Folder Locations options page. This will ensure a Top Up is always inserted when a scheduled track will be truncated before the *Song Threshold*.

The Top Up track selection is completely random. It does not attempt to find the best track duration to fill the remaining time, as this could lead to the same track being selected several hours in a row.

For this option to work successfully, [Top Up tracks](#) should preferably be of a genre that can be interrupted prematurely with less negative impact, such as instrumental music.

Time Checking will not function if the [Auto Speed](#) feature is enabled above.

Voice Track / Intro Overlapping (*Studio Pro*): This is a powerful feature which can make automated periods sound completely live. Voice tracks (including automated song introductions) can play simultaneously with the non-vocal start of a song (song ramp). The volume of the song will be lowered while the voice intro is playing based on the *Main Player Volume Reduction* option on the [Output page](#) > *Voice Track Player* tab.

There are five ways of scheduling overlapping voice tracks within *StationPlaylist Creator*.

- Voice Tracks recorded in *Studio Pro* or *Creator Pro*. (see Playlist Editor help in Creator)
- Song Intro/Outro Spots. (see Spot Properties help in Creator)
- Voice Intro/Outro Spots. (see Spot Properties help in Creator)
- [Time and Temperature Announcements](#).
- Cart Spots. (see [Break Note Codes](#) and [Play Break Note Carts as VT's](#))

For all the above options except for Voice Tracks, time investment will be required to establish the point where the vocals start in each song (ramp). The [Track Tool](#) available on the *View menu* and also in *StationPlaylist Creator* is designed to speed up this process. The Intro Time may also be entered manually using [Track Properties](#) on the File menu.

An Outro Time can also be utilized on songs to enable a voice track to play over the end of the outgoing song. With no Outro Time, a voice track can still play over the end of a song from the segue position, as the song is naturally fading.

Any *voice track* appearing before songs which have not been intro-timed will play sequentially and not overlapped.

Voice Tracks recorded in [VT Recorder](#) do not usually need songs to have *Intro* or *Outro* times unless *Automatic VT Overlap* is selected. For all other generic voice tracks, Studio will decide where the VT will start and finish based on the length of the voice track and the *Intro* and *Outro* times on the songs, and the [Intro Timing](#) option. The results are often as good as manual voice tracking.

Voice intro / song ramp overlapping may be controlled and/or disabled on an individual file basis by applying an [Intro Time](#) to a voice track. See [Intro Timing](#) for more information. Applying an intro-time of zero to a *voice track* will disable overlapping completely for this *voice track*. This may be necessary when the *voice track* has a music bed, for example.

This option may be switched on & off at different times of the day within a playlist, using a [break note code](#).

Short Intro Delay (*Studio Pro*): When checked, all voice tracks not recorded in [VT Recorder](#) and are shorter than the song ramp will start play at a calculated position so that the voice track will finish shortly before the start of the song vocals. When unchecked, the voice track will start based on the [Intro Timing](#) option in the *Event Times* options.

This option may be switched on & off at different times of the day within a playlist, using a [break note code](#).

Never Read File Tags: When unchecked (default), *Studio* will read the file tags of all the audio files when a playlist loads. Although a playlist created by *StationPlaylist Creator* contains all the information Studio needs, including artist, title, duration, and track other information, reading the file tags ensures the information is always up to date if any files have changed.

This option may be useful to enable when playlists are generated by 3rd party schedulers and contain all information required by Studio, and the file tags do not contain useful information.

Files manually inserted into Studio will still have the file tags read.

Use file tags for Artist and Title: When checked, the artist and title information is obtained from within file tags inside each file if available. When unchecked, or if no useful tag exists, the artist and title is obtained from the filename. See [Song Database](#) for more information.

This option should be unchecked if the tags in your audio files are not reliable enough to be used for artist and title recognition.

When loading playlists generated by *Creator*, the *Artist*, *Title*, *Intro & Outro Time*, *Duration*, and *Category* are included in the playlist file itself, but other information is read from the file tags.

Store played history in file tags: When enabled, as each track is played, the played date/time will be stored the file tag of each audio file. The played history stores the last 18 times each track was played. This is visible on the History tab in [Track Properties](#). If selected in Track Info settings on the [Track Info & Logging Options](#), this is also visible by moving the mouse over the track icon.

Note: This option should be unchecked on backup installations of *Studio*, or when running multiple *Studio*'s accessing the same audio files, and also when an automated backup of the audio files is in use.

Store crossfade scan in file tags (*Recommended*): When enabled, as each track is played for the first time, the track is scanned to calculate the best cue and segue positions, and overlap duration for crossfading. This can have a large overhead so it should be done just the once and stored in the file tags. Only disable if the same audio files are being shared among multiple computers with different [crossfade settings](#).

Note: With this option disabled, *Creator* will not know how long each track will play and can cause under and over scheduling. Enabled is recommended, or a one-off [File Scan](#) in the Track Tool.

Page 2

Playlist Filename Format: (only available when Creator is not installed)

This format represents the filename of each playlist file. The format supports all standard Windows date and time formatting specifiers. All literal characters enclosed in single or double quotes will be included as is. The default *mmmdd-hh".M3U"* assumes files are named in the format *Jan31-12.M3U*.

The most commonly used specifiers:

ss	The second with a leading zero (00-59)
nn	The minute with a leading zero (00-59)
hh	The hour with a leading zero (00-23)
dd	The day as a number with a leading zero (01-31)
ddd	The day as an abbreviation (Sun-Sat)
dddd	The day of week in full (Sunday-Saturday)
mm	The month as a number with a leading zero (01-12)
mmm	The month as an abbreviation (Jan-Dec)
yy	The year as a two-digit number (00-99)

Auto Fallback: This is for specialized purposes. When enabled, if a playlist does not exist using the format above, *Studio* will look for other playlists based on the following filename formats in this order.

dd-hh".M3U" (744 files)
 hh".M3U" (24 files)
 dd".M3U" (31 files)
 dddd".M3U" (7 files)
 Playlist.M3U (1 file)

The hh.M3U format may be useful for creating 24 backup playlists named 00.M3U, 01.M3U...23.M3U which will be loaded if a playlist is missing for any hour.

VT Filename Format: (only available when Creator is not installed)

The structure of the voice track filenames when recording a voice track via the [VT Recorder](#) within Studio. The standard Windows date/time formatting specifiers may be used (see above). This format should always contain at least **dd** (day), **hh** (hour), and **nn** specifiers.

The default format is **mmmdd-hhnn".WAV"**

The quotation marks around the file extension are required. Generally, only the extension should ever need modifying. [VT Recorder](#) supports OGG and WAV files only. Ogg Vorbis is similar to MP3 but provides better sound quality at smaller file sizes.

Filenames contain: (only available when Creator is not installed)

This option is only utilized if a track has no file tags or *Use file tags for Artist and Title* above is unchecked. Studio will then attempt to use the filename to determine the artist and title.

Artist first should be selected when all audio filenames contain the *Artist* followed by the *Title*. *Title first* should be selected when the *Title* appears before the *Artist*.

When Creator is installed, Studio reads this setting from Creator's options when Studio is loaded.

Artist Delimiter: (only available when Creator is not installed)

The characters in the audio filenames that divide the artist and the track title. The default of ' - ' (space,minus,space) supports the popular format: *Artist - Title.ext*.

When Creator is installed, Studio reads this setting from Creator's options.

Resample Quality: This option is available when *Use Mixer* is enabled in the [Output options](#), and controls the quality of audio resampling for tracks that are not 44100 or 48000 as selected for the *Sample Rate* in the *Output options / Mixer tab*. A change to the setting will take effect when play is stopped.

- *Fast:* Least CPU intensive but good quality.
- *Medium:* Reasonable CPU usage and slightly better quality.

- *Best*: CPU Intensive and best quality, but there is not usually a noticeable improvement.

Playlist File Path Substitutions:

Substitute the first occurrence of the *From* path with the *To* path in all the audio filenames within the playlist (case insensitive). This also works with break note codes that contain file paths, specifically *Play, *Dir, *Search, and *T=. This option may be required when Studio is operating on a different PC to the scheduler (eg. *StationPlaylist Creator*). This enables a playlist created on one computer to be opened and played in Studio on another computer without requiring identical drive letters or folder structures.

If the *From* path ends with a backslash "\", the *To* path should also.

If the *To* path is empty, the *From* path is removed from all filenames.

An empty *From* path represents all paths in the playlist. In this case, all paths in all filenames will be replaced with the *To* path.

To completely strip all paths from the filenames, leave the *From* path empty, and place a period "." in the *To* path.

Examples:

From: F: To: C:\Music

From: C:\ To: D:\

Change Options Password (*Studio Pro*): The [Options](#) dialog may be protected with a password. This may be used to stop unauthorized changes to the settings in a multiple user environment. The password is case sensitive.

When [Individual User Options](#) is enabled, the [User options](#) can still be accessed without a password.

Change Master Password (*Studio Pro*): Studio can be locked from all user access. This may be useful in automated store environments, for example, to prevent unauthorized access to the software. The password is case sensitive.

When a password has been established, the password will be required after *Studio* loads but before any access to the controls are possible. The password is also required when the main window is closed and an attempt is made to open the main window from the Windows system tray icon.

Studio will still function as usual and load playlists and start playing automatically without a password being entered.

The [Lock Studio](#) option on the Controls menu may also be used to lock access while the main window is visible.

Reset Window Positions: This will delete the registry entries storing the window positions and sizes. It may be necessary to restart Studio for some components to return to default positions and sizes.

User is Windows Logon name (*Studio Pro*): When checked, the [Studio User](#) will be set to the Windows logon name and cannot be changed. This may be useful for stations who have a separate Windows logon for each DJ, and prevents a DJ altering other users [Carts](#) and [User Options](#).

Enable Track Maintenance: When checked, enables [Track Properties](#) and the [Track Tool](#). These dialogs may be used to change the artist, title, segue times, etc.

Enable Column Movement: When unchecked, moving columns in the *Playlist Viewer* via drag & drop is disabled.

Restricted File Access (*Studio Pro*): When checked, all facilities which allow insertion of tracks from any folder on any drive are disabled. Manual insertion of tracks is restricted to search results only, which are restricted to files contained in the folders specified in the [Search Folders](#). This may be necessary for institutions where the music played is restricted to approved songs only. i.e. The operator has the freedom to select songs to play from the approved list only.

The following facilities or options are disabled:

Access to *StationPlaylist Creator* from the *Studio* system tray icon; drag & drop or pasting from a Windows folder, *Append External Playlist*; *Cart Edit*; *Open* and *Add* buttons on the *Insert Tracks* window; *Append Hour Marker*; and *Open File Location*. *Hour Markers* cannot be deleted.

Restricted Playlist Access (*Studio Pro*): This option is only available when *Restricted File Access* is enabled above. When checked, disables manual deletion or insertion of any audio files in the *Playlist Viewer* with the exception of break notes. The operator is restricted to playing only the tracks selected in the playlist and cannot insert any other tracks or change the order of the tracks.

Allow All DSPs: When enabled, allows DSP's on the *Main Player* tab of the [Output options](#) to be used while the [Use Mixer](#)

checkbox is enabled, and inversely, allows DSP's on the *Mixer tab* to be loaded when *Use Mixer* is disabled. No audio passes through the Mixer DSP's when *Use Mixer* is disabled, so this has limited use. Enabling DSP's in the *Main Player* is not recommended as it loads 2 DSP's, one of each player, which can easily overload the CPU and cause playback issues.

Synchronize Clock (*Studio Pro*): Studio can synchronize the computer clock to a specific time when a contact closure is detected, or a text command is sent to Studio via TCP or a serial port. See the [Communications chapter](#). This is useful for stations taking satellite feeds to synchronize with the network clock.

The time is specified in minutes:seconds (mm:ss). The current computer clock needs to be within 2 minutes of the selected time otherwise the function will be ignored.

Note: Windows Vista and later versions of Windows by default do not permit applications to change the system time. See the tutorial on [this page](#) to enable it for Normal (non-administrator) user accounts. Administrator accounts need to disable UAC.

Global Clock Offset: This may be used to operate *Studio* in a different time zone to the current computer clock by entering +/- and a time in hours:minutes:seconds. Click the +/- button to switch between adding or subtracting the time from the computer clock.

Fail-safe Duration: The fail-safe routine checks the *Elapsed Time* is moving during automation. If something should go wrong with the audio engine, or playback stops progressing for whatever reason, *Studio* will attempt to restart play with the current track and/or next track. If this fails, the audio engine is forcefully terminated and restarted, and another attempt is made to restart play.

If more than two audio engine timeouts occur back to back, Studio will attempt to restart rather than just restarting the audio engine, in an attempt to get audio playing again.

The *Fail-safe Duration* is the period between checks of the *Elapsed Time*. Pre-buffering some internet streams can take up to 10 seconds, so in this case, the setting should exceed 10 seconds otherwise a false problem could be detected. A value of zero will disable fail-safe detection.

In the above scenario, an error is output to the [Played Log](#) as an *Audio Engine Timeout*. These can be caused by a multitude of reasons, including a hardware or driver fault, a corrupted or unplayable audio file, computer, hard drive, RAM, or Windows fault. It can also be caused by SPL Encoder when attached to Studio's DSP, and there is an internet issue uploading metadata.

Startup Delay: Delays Studio loading for a few seconds after a computer reboot, when the option [Load Studio at Windows Logon](#) is enabled. This may be necessary if soundcard drivers or network drive mappings take some time to load when the computer is booted. It has no effect when Studio is loaded manually.

Event Times

Load New Playlist: The next hours playlist will be loaded this number of minutes before the current hour finishes. *Auto Load Playlists* must be enabled for this option to be available. Valid values are 1 to 99 minutes.

Instant Hour Offset: This option will start the next hours playlist plus or minus this number of milliseconds from the top of the hour.

This only takes effect when one of the following conditions exist.

- The [Hour Markers](#) option is set to *Instant*, or
- [End-of-hour timed events](#) are scheduled at the end of the hour finishing (minute 60:00), or
- An instant [timed event](#) has been scheduled for the top of the next hour (minute 00:00)

This is mainly designed for situations where a satellite or external audio feed is always +/- the correct time every hour.

A negative value will start the playlist before the top of the hour, and a positive value will start after the change of hour.

Play Next Hour Offset: This option is only utilized when the [Hour Markers](#) option is set to *Play Next*, and no [end-of-hour timed events](#) are scheduled in the hour, and no instant [timed events](#) exist for the top of the hour.

This option is designed to start new hours playlists closer to the top of the hour. A track finishing within this number of

seconds from the end of the hour will start the next hour early. A typical value is -60 seconds.

Preload New Track: The next track is preloaded into the main player this number of seconds before the end of the current song finishes. This is necessary to provide enough time to open the file and *Cue* the track if necessary. The default and minimum setting is 2 seconds, and the maximum 6 seconds. This setting may need to be increased on very slow or heavily utilized PC's.

Note: Preloading more than 2 seconds in advance could cause instant hour starts to start late, if a track is finishing close to the top of the hour.

Clear Playlists: When the [Hour Markers](#) option is set to *Play Next* or *Instant*, playlists that are older than this number of hours will be removed from the *Playlist Viewer* when a new hours playlist is started.

When the *Hour Markers* option is set to *Ignore*, tracks above the current track that were played more this number of hours ago will be removed from the *Playlist Viewer*. When set to 0, all but the last track played will be removed.

The maximum setting is 12 hours. To disable all track removal from the playlist viewer, set the option to 13 which represents "Never".

Auto Create Playlist: Used in conjunction with *Auto Playlist Creation*, this permits the playlists to be created hours or days in advance of the current playlist expiring. At the default of 0, playlists will be created 15 minutes before the next playlist is required, based on *Load New Playlist* above. The maximum is 999 hours (~41 days). This may be useful for voice tracking purposes when several hours or days of playlists need to exist in advance.

Max Silence Before Timed Event: The maximum amount of silence deemed acceptable when a track finishes close to an instant *Timed Event* or instant *Hour Marker*. This prevents a track playing for just a few seconds to fill the space. The default is 3000 milliseconds (3 seconds).

Resume tracks at startup: This option is available if [Auto Play at Startup](#) is enabled. If the track scheduled to be playing at the current time is longer than the specified duration, it will be started at a calculated position within the track when Studio loads. This feature is useful to keep the playlist on time if there is a temporary power outage that restarts the computer and Studio while a lengthy track is playing. Shorter tracks will be started from the beginning.

Time Checking: [Time Checking](#) will occur at this period before the next hour. The default is 18 minutes before the hour, with a minimum of 4 and a maximum of 30. This setting is not utilized when instant [timed events](#) exist between the playlist position and the end of the hour.

Time Check Song Threshold: The [Time Checking](#) routine will only become active if it determines that the track playing at the end of the hour, or before a *Timed Event*, will have played for less than this period of time. The default is 120 seconds, with a minimum of 15 seconds and a maximum of 180 seconds.

Note: It is important that all [Top Up Tracks](#) exceed the length of time specified.

Intro Timing (*Studio Pro*): When automatic VT/Song overlapping is in use, this option controls the default timing of voice track / song ramp overlapping or the preferred position to start a voice track in relation to an intro-timed song. This option is only available when the [Short Intro Delay](#) option is disabled.

Automatic VT/Song overlapping is used for generic Voice Intro spots, Song Intro spots, and voice tracks recorded outside of *VT Recorder*, or with [VT Recorder](#) set to *Automatic VT Overlap*.

Valid values are -9000 through to 9000 milliseconds. A negative value will start all voice tracks before the song, by the specified number of milliseconds if possible. A positive value will attempt to play the voice track after the track starts by the specified number of milliseconds, but only if the track has an intro-time long enough to support it. At no stage will *Studio* allow the voice track to overlap the vocals of the song.

If voice tracks are crashing the vocals, the VT Adjustment options below may need adjusting.

If a voice track is longer than the intro-time of the song (otherwise known as the song ramp), the voice track will always start before the song and play over the end of the outgoing song from the *Segue* position, or earlier if the song has an [Outro Time](#) set. The song will start at a calculated position so that the voice track will finish just prior to the start of the vocals of the song.

This default *Intro Timing* option may be overridden on individual voice tracks by specifying an [Intro Time](#) against a voice track. An *Intro Time* of 0 (zero) on a voice track has a special meaning. This will disable overlapping for this voice track and it will play sequentially with the other tracks.

Short VT Adjustment (*Studio Pro*): This advanced option will adjust the start timing of *Voice Intro* spots and voice tracks which are shorter than the [intro time](#) of the next song (otherwise known as the song ramp). This includes voice tracks recorded with *Manual Incoming Only* selected in [VT Recorder](#). This option should only need adjusting by a few milliseconds if voice tracks are crashing the vocals of the next song, or are finishing too early before the vocals.

Valid values are -1500 to 1500 milliseconds. A value of 0 will most likely have voice tracks finishing immediately the vocals start. A value of -1000 will start and finish the voice track earlier by 1 second.

This option also adjusts the routine for determining if a voice track is short or long. For voice tracks shorter than the song ramp, the voice track is delayed while the next song starts playing. While the next song is playing, the voice track will start. Whereas long voice tracks will start and the next song will be delayed. While the voice track is playing, the song will start. The formula is as follows:

Short Intro = Voice Track Length <= (Song Intro Time + Short Intro Adjustment)
Long Intro = not Short Intro.

Long VT Adjustment (*Studio Pro*): This advanced option will adjust the start timing of *Voice Intro* spots and voice tracks which are equal to or longer than the following [song ramp](#). This includes voice tracks recorded with *Manual Incoming/Outgoing* selected in [VT Recorder](#). This option should only need adjusting by a few milliseconds if voice tracks are crashing the vocals of the next song, or are finishing too early before the vocals.

Valid values are -1500 to 1500 milliseconds. A value of 0 will most likely have voice tracks finishing immediately the vocals start. A value of -1000 will delay the next track starting by 1 second.

Truncation Delay: This option and the following is used when a track is interrupted by manually clicking *Play* on another track, or when instant *Hour Markers* or instant *Timed Events* fire. It is the length of time the current track will be allowed to fade before the new track starts. Valid values are 0 to 9999 milliseconds.

This option may be set via a [Break Note Code](#) scheduled in the playlist, to change the delay at different times of the day.

This setting and the *Truncate Fade Time* below are ignored and no delay or fading occurs when [Use Mixer](#) is unchecked and the two Devices on the [Main Player](#) tab are set to 2 different devices.

Truncation Fade Time: Used in conjunction with *Truncation Delay* above, this determines the length of time after the *Delay* period which the interrupted track will overlap under the new track. The higher this value, more overlapping will be apparent. Valid values are 500 to 9999 milliseconds.

Hook to Hook Fade Time: Controls the length of fade between one hook and the next. The default is 1000ms.

Note 1: This setting also works if a short voice intro spot is placed between hooks. In this situation, a higher value will be required.

Note 2: The last hook in a sequence will continue to fade out based on normal crossfade overlapping with the next track.

Folder Locations

Winamp Folder: The location of the installation of Winamp, if installed. This defaults to C:\Program Files\Winamp. *Studio* will copy some plugins out of the Winamp folder for use by Studio.

Log Folder: The path where all [log files](#) will be created.

Playlist Folder: The path where the playlist files are located for automatic loading. This is usually set to the same folder as StationPlaylist Creator's *Playlist Folder* setting.

VT Replacements: Voice Track Markers that were added to the playlist but not recorded may be replaced with a generic voice track from a folder. Multiple files added to this folder will rotate. This requires the option *Generate VT Filenames* to be enabled in Creator.

If a subfolder exists under the VT Replacement folder with the name of the current [Studio User](#), the tracks will be inserted from this folder instead. This enables the voice to change at different times of the day. The Studio User may be changed

automatically by scheduling a [*User](#) break note code in Creator.

Studio will first look for a file with the name of the following song or artist in a subfolder called Names. For example, if the next song is Madonna - True Blue, Studio will attempt to find a file named as shown in the Names folder. If not found, Studio will look for a file named Madonna. If not found, Studio will insert a random track from the *VT Replacements* folder. This works similarly to *Song Intros* scheduled in *StationPlaylist Creator* to introduce the artist or song if the hour has not been voice tracked.

Multiple files for the same name may exist. An @ character may be entered after the name and anything after that will be ignored. eg. Madonna@1.mp3, Madonna@2.mp3. These tracks will be selected randomly.

The Names subfolder also works within the *Studio User* folder described above.

Search Folders: The folders containing audio files which will be used for the search facility on the [Insert Tracks](#) window, and also the website [Song Requester](#). Enter one or more folders, or browse and select a folder by clicking the [...] button.

Different folders may be set automatically during the day using the *Search [break note code](#) scheduled in the playlist.

Check the [Include subfolders](#) option to include files in all subfolders.

With [Rescan Search Folders at Startup](#) enabled, all the audio files contained in the *Search Folders* will be loaded into *Studio* when *Studio* is loaded. This occurs in the background while *Studio* continues to operate normally.

The [Rescan](#) button may be used when files have been added or removed from the folders specified in the *Search Folders*. A rescan may also be initiated from a popup menu on the [Insert Tracks](#) window. While Studio is rescanning the search folders, the previous set of files will still be available for immediate searching and inserting.

[Auto Rescan](#), when checked, will perform an automatic rescan of the *Search Folders* at the specified time. The default time is 3:30 am.

Top Up Folders: The folders containing audio files which are primarily used to top up the playlist if it should fall short in any particular hour. Enter one or more folders, or browse and select a folder by clicking the [...] button.

Different folders may be set automatically during the day using the *T [break note code](#) scheduled in the playlist.

The option [On Short Hours](#) must be set to *Insert Top Up Tracks* before Top Up files will be inserted when a playlist runs out of tracks.

Check the [Include subfolders](#) option to include files in all subfolders. These files are also used in the [Insert Random Top Up](#) option on the *Edit* & right-click popup menus. Check the [Recursive](#) option to include files in all subfolders. *Top Up* files are also used by the [Time Checking](#) feature.

Inserted tracks will comply with any [Schedule Restrictions](#) and [Song & Artist Separation](#).

The *Top Up Folders* are loaded into Studio when Studio loads.

The [Rescan](#) button may be used when files have been added or removed from the folders specified in the *Top Up Folders*.

[Auto Rescan](#), when checked, will perform an automatic rescan of the *Top Up Folders* at the specified time. The default time is 4:30 am.

Windows shortcuts to files stored elsewhere is supported. This may be used to isolate some tracks from a large folder to be used for topping up.

Contains Instrumentals: This option is only visible when the [Time Checking](#) feature is enabled. When checked, the Time Checking system will always insert a Top Up if it determines the last song in the hour will be truncated and played for less time than the [Time Check Song Threshold](#). When unchecked, *Time Checking* will not insert a Top Up track if it is shorter than the scheduled track.

Input

The options on this page control all aspects of the audio input and decoding stage before the audio is passed to the [Output](#) stage.

Input is available via Winamp compatible file decoder plugins, and sound input devices.

► [File Input](#)

► [Mic Input](#)

► [Line Input](#)

File Input

Use ReplayGain: When checked, all tracks with ReplayGain information in the file tag will have the volume of the track adjusted in the decoder. The [Track Tool](#) supports a [Gain Scan](#) to calculate the average loudness of each track. A ReplayGain value may also be entered manually on the Timing tab in [Track Properties](#).

Note that tracks with ReplayGain applied will often appear lower in volume to those without RG tags, and will require different crossfade settings. The default volume DB settings below will need to have a lower value when using ReplayGain. For example, the Segue DB for songs defaults to -18db but may need to be -23db or lower for best crossfading results.

When enabling this option it is recommended every song in the library is scanned in the [Gain Scan](#).

Exclude Hooks: This option is available when *Use ReplayGain* is enabled above. When enabled, [Hooks](#) will not use any ReplayGain volume adjustment.

File Buffer Size: The amount of read-ahead audio pre-loaded into RAM from each audio file. Valid values are 2 seconds to 3600 seconds (1 hour). For files shorter than this setting, the entire audio file currently playing will be decoded to RAM during the preload. Only adjust this to a larger value when experiencing intermittent pauses or interruption during playback when accessing audio files over a slow or unreliable network or NAS drive. Large values will use more RAM and an initial burst of CPU and hard drive activity at a change of track. The default of 4 seconds should work well for most installations.

Crossfading

Crossfading involves the transition from one track to the next. Most radio stations will want to use crossfading which prevents songs fading out completely to silence before the next song starts. Crossfading involves starting the next track while the current track is fading out. It also controls how long the 2 tracks will overlap and mix together by fading the outgoing track at a faster or slower rate.

The automatic crossfading functions use intelligent volume scanning techniques to calculate what it thinks is the best segue position for the outgoing track, the best cue position for the incoming track, and the best length of overlap mixing, based on the audio volumes inside each track.

These positions are calculated as each track is loaded into the *Playlist Viewer* for the first time, and usually stored in a file tag. A scanned file will not be scanned again unless the tuning parameters below have been altered, or the file is read-only and the file tag cannot be updated, or [Store crossfade scan in file tags](#) is disabled.

Sometimes the automatic crossfade calculations may not be ideal for a specific song, and these positions can be manually set via [Track Properties](#), or the [Track Tool](#) to set positions while listening to the track. Tracks with a *Fixed Crossfade* position will never be scanned by Studio. The settings below will also have no effect on these tracks.

The [Track Tool](#) also supports a *File Scan* function to pre-scan files with specific crossfade parameters. This may be useful if different genres of music sound better with different parameters. Studio's crossfading settings are ignored for tracks that have a manual "Fixed Crossfade" setting set in the *Track Tool*.

Note: CD tracks inserted into the *Playlist Viewer* will play right through to the end and will not crossfade. However, manually clicking *Play* on another track in the playlist will provide a crossfade on CD tracks.

Different crossfade settings are available for 4 types of tracks - **Songs**, **Spots**, **Commercials**, and **Voice Tracks**. The *Spots*

settings will be used for any audio file that is not a song, commercial or voice track. These are associated with the 4 tabs in the File Input options. All 4 track types/tabs have identical options described below.

Crossfade Fine Tune: Most users should not need to adjust this setting. It may be used to start tracks a little earlier or later during crossfading when the current track is finishing. Valid values are -1000 to +1000 milliseconds.

Crossfade (checkbox): When unchecked, no file scanning will take place by *Studio*. However, any fixed crossfade settings specified for a track will continue to take effect. These are manual settings set in the [Track Tool](#) or [Track Properties](#), and also settings calculated by the *File Scan* feature in the *Track Tool*.

For the *Songs* tab, this option may be switched on/off with a [break note code](#) scheduled in the playlist. This would be useful if there is a classical music period during the day, for example. Alternatively, the classical music may be loaded in the Track Tool/[File Scan](#) and *Disable Crossfading* selected.

For the *Voice Tracks* tab, *Crossfade Voice Tracks* needs to be enabled if you intend to play a music bed simultaneously with a voice track, otherwise the music bed will not finish when the voice track finishes. For more details, see this [FAQ](#) on the StationPlaylist website.

Silence Gap: This option is available when crossfading is disabled. This will insert a period of silence before each track played. This may be suitable for classical music for example.

Note: A track with a *Fixed Crossfade* setting (set in the Track Tool) will play this much longer after the Segue position but there may not be silence before the next track starts.

Cue at: The position where the track will start playing from. It is calculated at the position where the volume first exceeds the specified DB value. This is designed to remove silence and very low volumes at the start of every track.

Segue at: The position near the end of the track where the next track will start. It is calculated at the position where the last peak volume exceeds the specified DB value. The length of the crossfade is specified by the *Overlap* duration below.

The default for songs is -18db. Alter this value if you find most songs are segueing too early or too late. eg. -15db will segue earlier at a higher volume, -21db will segue later at a lower volume. Using a higher value will result in more songs crossfading too early and more songs may need manual settings in the Track Tool.

When using a compressor/limiter sound processor with an automatic gain control (AGC), the *Segue DB* often needs to be much lower depending on the gain of the AGC. A 25db gain may require a song *Segue* of around -22db to provide a more natural crossfade.

Overlap to: The previous track is allowed to overlap up to this position in the current track during crossfading. It is calculated at the position where the volume first exceeds the specified DB value. Tracks that start with a low volume will be overlapped longer than those which start at a high volume. Generally this option should be higher (less negative) than the *Segue DB*.

Min Overlap: Specifies the minimum allowed crossfade overlap duration. Short overlaps can sound too abrupt, so this option enforces a minimum *Overlap* duration and perhaps longer crossfade. Roughly half the specified duration of overlap is actually noticeable due to fading, so the default of 2.5 seconds may provide only 1 second of noticeable crossfade mixing.

Max Overlap: Specifies the maximum allowed crossfade overlap duration. This will override the *Overlap* setting calculated for a track if it exceeds this value. This will generally only affect tracks that have an extended period of low volume at the start of the track. The default of 8 seconds for songs should provide enough protection to prevent excessive overlap mixing for these low volume tracks.

Set Defaults: Sets all settings on the current tab to default.

Notes: When *Crossfade Spots*, *Crossfade Commercials*, or *Crossfade Voice Tracks* is disabled, Studio will recalculate the duration of these tracks as they are loaded. This is useful if some tracks have incorrect durations in [Track Properties](#) and will ensure they play for their full duration.

Notes for *Crossfade Voice Tracks*:

Note 1: This option enabled is designed to only remove silence from the start and end of a voice track. Two or more voice tracks scheduled back to back will never crossfade as there is only one voice track player.

Note 2: Regardless of this option, a voice track or song outro scheduled after a song will start playing at the songs segue position, and overlap with the end of the song. This provides talk-over simulation and is not considered crossfading. The *Max Overlap* setting controls how long the outgoing song with fade out over the voice track. Set at the default setting of 0, the song will not be artificially faded at all and will play to the end. Above 0, the song will be faded out over the specified period.

Note 3: Regardless of this option, a voice track scheduled after a spot will start playing at the spots segue position, and overlap with the entire remaining length of the spot. This may be used for playing a music bed under a voice track, for example. In this case set the *Segue* position of the music bed spot to 1 or 2 seconds. The music bed will start for 1 or 2 seconds followed by the voice track. Note that the music bed is not reduced in volume by Studio, so the music bed should be recorded at a low volume to enable the voice track to be heard.

Internet Streams

Read Stream Metadata: When checked, and when playing [internet streams](#) or files on a web server, *Studio* will attempt to extract the artist and title metadata included in the stream and display it in the *Playlist Viewer*. For this to work correctly, the metadata will need to be in the Artist - Title structure followed by an optional " - album" and/or "(station name)".

Studio will also regard a change of metadata as a new track and update the *Now Playing* facility, so listeners of your station or stream will see the title changes.

Metadata received while playing a stream can activate [Studio Commands/scripts](#). This may be useful when taking a live stream from a DJ, and ads scheduled in the playlist need to be played during the hour. Metadata containing **SPLCMD:** will activate whatever command follows. eg. SPLCMD:Skip will stop the stream and play the next track in the playlist. When the DJ is using Studio, the metadata can be sent via a **Metadata=break note code* or a track with the command in the Title. A SPLCMD:command can appear at the end of normal metadata text, and will be trimmed from the metadata sent to the [Now Playing](#) system.

RTP Buffer Size: The minimum buffer size used while receiving an RTP stream. Valid values are 75 to 2000ms with the default at 100ms. The internal buffer will automatically increase if it detects it is too low to play reliably. This may need to be increased for reliability when receiving an RTP stream over the internet.

Silence Detection: When playing an internet stream, this function may be used to terminate the stream prematurely and start the next track when the audio goes silent for longer than the *Silence Duration*.

Silence Threshold: A volume lower than this decibel setting is regarded as silence.

Silence Duration: If the volume drops below the *Silence Threshold* for longer than this duration, the stream will be terminated and the next track started. Allowance must be made for pauses during speech. A duration too short could trigger the silence detection prematurely. Valid values are 1500 to 9000 milliseconds.

File Decoders

Studio utilizes input plugins for decoding the audio, some are 3rd party and some written by us. Each plugin supports decoding one or more types of audio files. See the [File Types](#) operation chapter for details of the supported file types.

Refresh (button): This will load any updated input plugins.

Configure (button): Some of the input plugins provide a configuration dialog. This will configure the highlighted plugin. Only audio decoding configurations are relevant for *Studio*. File tagging and other settings are not utilized.

Note: While the configuration window is open, *Studio* will not be able to load the next track, so it is important to close the configuration dialog as soon as possible.

Any changes to input decoder configurations may require Studio to be restarted to take effect.

Cue Sheets

Studio can read a Cue Sheet to obtain artist, title, and other information when playing one large audio file containing several songs, such as a pre-recorded live show. See [Cue Sheets](#).

Mic Input

This tab is used to control what occurs when the *Mic* button on the *Studio* window is toggled on and off. *Mic Input* can also be controlled via hardware devices configured in the [Communications](#) options.

Live audio may be sampled from a sound recording device or RTP stream and sent to the [output](#).

While the Mic is on, the main player volume is reduced based on the *Main Player Volume Reduction* settings in the *Mic Output tab* of the [Output Options](#).

Enable Mic Button: When checked, a *Mic* button on the main screen will be available. When unchecked, the button is associated with the [Carts Form](#) toggle in the Pro edition.

Device: The input sound device to use for the Microphone. This may be a Windows sound input device, or a PCM or MP3 *RTP Stream*.

RTP Port: When *RTP Stream* is selected for the *Device*, this option specifies the UDP port to listen to.

SPL RTP Only: When *RTP Stream* is selected for the *Device*, only RTP streams produced by StationPlaylist software (*Streamer* or another *Studio*) will be accepted, and not from 3rd party RTP software. This is recommended for security purposes.

UPnP Port Forwarding: When *RTP Stream* is selected for the *Device*, and UPnP is enabled in the router, enable this option to automatically configure the router to forward incoming connections via the internet on the selected port to the Studio PC.

Some of the following options are only available on Windows XP.

Recording Mixer (*Windows XP only*): The soundcard recording mixer to be controlled by the *Mic* button. This can be changed to any mixer such as the Line-In mixer if the microphone is using an external amplifier plugged into the Line-In socket on a soundcard. This option is used only when the *Mic Input Control* below is set to *Record from Device*.

When set to (*None*), no mixer is specifically selected when the Mic button is activated. The current selected mixer in the Windows Recording Control dialog is used.

Output Mixer (*Windows XP only*): The mixer on the [Mic Output](#) device to be controlled by the *Mic* button. In most cases, this should be identical to the name of the *Recording Mixer* above.

When the *Mic Input Control* is set to *Record from Device*, the *Output Mixer* is muted to prevent the soundcard from passing the audio from the input socket through to the soundcard output, thereby producing an echo.

When the *Mic Input Control* is set to *Control Output Mixer*, this mixers mute checkbox is toggled on and off as the Mic button is toggled.

When set to (*None*), no mixer is muted.

Input Mixer/Output Mixer (*button*): Opens the Windows Sound dialog.

Mic Input Control (*Windows XP only*):

Record from Device: The *Device* and *Recording Mixer* above will be enabled, and the audio will be obtained by sampling the audio from this device/mixer and sending it to the [output](#) stage.

Advantages:

- The *Mic* audio can be sampled from any input device, not just the soundcard being used for output.
- A USB or FireWire microphone or input device can be used.
- The *Mic* audio can be mixed with the audio from all other players into one audio stream.
- The Mic audio will be reflected in the VU meter.

- The Mic audio will pass through the DSP processor system enabling compression/limiting via software plugins.
- The *Mic* audio can be encoded to a stream digitally along with all the other players.
- The *Record while Mic On* option can be used to record the microphone audio.

Disadvantages:

- Due to buffering, a small delay of the size of the input *buffer size* below plus the [output buffer](#) will be introduced between the input and the output. This defaults to 500ms or half a second. This should only be an issue when monitoring with headphones is required.
- Cannot be used when stream encoding from external encoders such as *StationPlaylist Streamer* or *Windows Media Encoder*, using one soundcard.

Control Output Mixer: The *Output Mixer* above on the sound output device specified on the [Mic Output](#) options page will be toggled between muted and unmuted as the *Mic* button is toggled. This simply allows the audio to pass through from the input socket to the output of the soundcard. The audio itself is not sampled/recorded by *Studio*.

Advantage:

- No delay between the input and output audio.

Disadvantages:

- The microphone must be connected to the same soundcard being used for output.
- No USB or FireWire microphones can be used.
- The audio will not flow through the [Mic Output](#), or the DSP system for processing.
- The audio cannot be encoded to a stream directly by *Studio*. Stream encoders would need to sample/record from the soundcard which reduces sound quality.
- The VU meter will not reflect the audio as you speak.
- The *Record while Mic On* option below cannot be used to record the microphone output to a file.

Buffer Size: This controls the size of the recording buffer when recording audio from the device. A buffer too small may result in audio problems such as stuttering. A large buffer will result in high latency/longer audio delays. The default of 175ms should be suitable in most circumstances.

Convert to Mono: The audio recorded from the *Input Mixer* above will have the left and right channels combined together.

Record while Mic On: This option is available when the recording facility has been configured on the *Output* page > [Record tab](#). Recording to a disk file will start automatically when the *Mic Button* is activated, and stop recording when deactivated. Recording can be manually controlled using the [Record to file](#) menu item on the *Controls Menu*.

Turn Off Mic On Play: When enabled, the *Mic* is turned off automatically when a track is played. This is a safety and convenience option for presenters who do not talk over tracks.

Turn on Mic At Stop: When enabled, the *Mic* is turned on automatically when play stops.

Mute Mixer: Toggles the Mute control on and off when the *Mic* is switched on and off. This may be useful in combination with the *Toggle Monitor* option below.

Toggle Monitor: This option is available when a *Monitor Device* has been selected on the Mixer tab of the [Output options](#). The [Monitor](#) will be toggled on and off when the *Mic* button is switched on and off. This may be useful in combination with the *Mute Mixer* option above.

On Break Note: The entered [break note code](#) will be executed when the *Mic* is switched on. This may be used, for example, to toggle contact closures or send text to a serial device, or any other break note code function. Some possible uses are to turn on a studio light bulb, and/or mute an external speaker to prevent feedback while the *Mic* is on.

Line Input

This tab is used to control what occurs when the *Line In* button on the *Studio* window is toggled on and off. *Line Input* can

also be controlled via [break notes](#) scheduled in a playlist, and hardware devices configured in the [Communications](#) options.

Live audio is recorded from a sound recording device and sent to the [output](#).

Note: When the [Mic Input](#) is set to *Record from Device*, and the same *Device* is selected for both the *Mic Input* and *Line Input*, both of these inputs cannot be active simultaneously. Activating one will deactivate the other. Use separate sound input devices if this situation is required.

The **Line Input Switching** tab (*Studio Pro only*) provides an additional 3 sound devices or recording mixer configurations for switching to different audio sources before the line input is opened. Switching can be scheduled in a playlist via a [Break Note Code](#). The Device configuration below refers to Device 1, and the 3 devices on the *Line Input Switching* tab refer to Device 2, 3 and 4.

This may be used with a multiple input soundcard, or multiple soundcards, to switch between audio sources such as different satellite feeds without using a hardware switch.

Line Input Switching is only available when the *Line Input Control* below is set to *Record from Device*.

Enable Line-In Button: When checked, a *Line-In* button on the main screen will be available. When unchecked, the button will be replaced with a [User](#) button associated with the [Change User](#) function on the View menu.

Break Note Line-In Control: When checked, the *Line-In* recording mixer for the selected device will be opened for the duration of [Break Notes](#). This is designed for the purpose of automated control of live external feeds. This option may be enabled/disabled within a playlist via the *L [Break Note Code](#).

Device: The input sound device to use for the *Line Input*. This may be a Windows sound input device, or a PCM or MP3 *RTP Stream*.

RTP Port: When *RTP Stream* is selected for the *Device*, this option specifies the UDP port to listen to.

SPL RTP Only: When *RTP Stream* is selected for the *Device*, only RTP streams produced by StationPlaylist software (*Streamer* or another *Studio*) will be accepted, and not from 3rd party RTP software. This is recommended for security purposes.

UPnP Port Forwarding: When *RTP Stream* is selected for the *Device*, and UPnP is enabled in the router, enable this option to automatically configure the router to forward incoming connections via the internet on the selected port to the Studio PC.

Some of the following options are only available on Windows XP.

Recording Mixer (*Windows XP only*): The soundcard recording mixer to be controlled by the *Line Input*. This mixer will be selected/enabled and the audio sampled when *Line Input* is activated.

When set to (*None*), no mixer is specifically selected when the *Line Input* is activated. The current selected mixer in the Windows Recording Control dialog is used.

Output Mixer (*Windows XP only*): The mixer on the [Line Output](#) device to be controlled by the *Line Input*. In most cases, this should be identical to the name of the *Recording Mixer* above.

When the *Line Input Control* is set to *Record from Device*, the *Output Mixer* is muted to prevent the soundcard from passing the audio from the input socket through to the soundcard output, thereby producing an echo.

When the *Line Input Control* is set to *Control Output Mixer*, this mixers mute checkbox is toggled on and off as the *Line Input* is toggled.

When set to (*None*), no mixer is muted.

Input Mixer/Output Mixer (*button*): Opens the Windows Recording Control or the Windows Volume Control for the selected *Device* depending on the *Line Input Control* below.

Line Input Control (*Windows XP Only*):

Record from Device: The *Device* and *Recording Mixer* above will be enabled and the audio will be obtained by sampling the audio from this device/mixer and sending it to the [output](#) stage.

Advantages:

- The *Line-In* audio can be sampled from any input device, not just the soundcard being used for output.
- The *Line-In* audio can be mixed with the audio from all other players into one audio stream.
- The Line-In audio will be reflected in the VU meter.
- The Line-In audio will pass through the DSP processor system enabling compression/limiting via software plugins.
- The *Line-In* audio can be encoded to a stream digitally along with all the other players.

Disadvantages:

- Due to buffering, a small delay of the size of the *input buffer* below plus the [output buffer](#) will be introduced between the input and the output. This defaults to 500ms or half a second.
- Cannot be used when stream encoding from external encoders such as Windows Media Encoder, using one soundcard

Control Output Mixer: The *Output Mixer* above on the sound output device specified on the [Line Output](#) options page will be toggled between muted and unmuted as the Line Input is toggled. This simply allows the audio to pass through from the input socket to the output of the soundcard. The audio itself is not sampled/recorded by *Studio*.

This feature may only be available on Windows XP and earlier Windows versions, depending on the soundcard driver.

Advantage:

- No delay between the input and output audio.

Disadvantages:

- The Line-In must be connected to the same soundcard being used for output.
- The audio will not flow through the [Line Output](#), or the DSP system for processing.
- The audio cannot be encoded to a stream directly by *Studio*. Stream encoders would need to sample/record from the soundcard which reduces sound quality.
- The VU meter will not reflect the audio of the Line-In.

Device Recording Options

These options are available when the *Line Input Control* above is set to *Record from Device*.

Buffer Size: This controls the size of the recording buffer when recording audio from the device. A buffer too small may result in audio problems such as echoes or stuttering. A large buffer will result in high latency/longer audio delays. The default of 200ms should be suitable in most circumstances.

Convert to Mono: The audio recorded from the *Input Mixer* above will have the left and right channels combined together.

Fade Time: When non-zero, the audio sampled from *Line Input* is faded in and out when the line-in device is turned on and off. The duration of the fade is specified in milliseconds. The maximum is 5000 milliseconds or 5 seconds. A value of zero will switch instantly with no fading.

Silence Detection: This option may be used to detect silence on a line input feed.

In Automation Only: When checked, *Silence Detection* will only occur when Studio is in automation mode and "playing" a line input break note via *Break Note Line-In Control* described above. When silence is detected, the break note will be terminated early and the next track in the playlist will be started.

When unchecked, detection will also occur in live mode where the Line Input has been activated manually or via a script. In this case, Studio will switch Line Input off and start automation mode.

Silence Threshold: A volume lower than this decibel setting is regarded as silence.

Silence Duration: Silence detection will occur if the volume drops below the *Silence Threshold* for longer than this duration.

Allowance must be made for pauses during speech. A duration too short could trigger the silence detection prematurely. Valid values are 1500 to 9000 milliseconds.

Options

BN Intro & Outro Overlap: These two options enable jingles or other audio files to overlap the start and end of Break Note Line-In feeds. Both the *Intro* and *Outro time* is specified in seconds from 0 to 9.

eg. A *BN Intro Overlap* of 4 seconds will open the Line-In when the last 4 seconds of the current track is still to play. This may be useful for a satellite news feed blending with the end of a news jingle. Similarly, a *BN Outro Overlap* of 4 seconds will start the next track playing with 4 seconds of the Line-In feed left to play.

These settings may be altered within a playlist via the ***B** [Break Note Code](#).

The *BN Intro* feature does not work with break notes scheduled as the first *Fixed* or *Instant* timed event in an hour. A jingle prior to the break note must be the first timed event.

Output

The options on this page control all aspects of the audio after it is obtained from the [Input](#) stage.

The page contains tabs for the Main Player, Voice Track Player, Cart Player, Mic Output, Line Output, Mixer, and Record.

Use Mixer: This option is only available when play is stopped.

When checked, the audio from all 7 players are mixed together into one audio stream and output to one sound output device. This has benefits for DSP processing and internet streaming discussed below.

When unchecked, the audio from all 7 players are output to a sound device with separate connections. Each output specifies which sound device to output to. This is useful when using a hardware mixer / broadcast console and wish to manually control the volume and fading of each player.

Note: ASIO output is only supported when *Use Mixer* is enabled.

When unchecked, and *Device 1* and *Device 2* are set to two different devices on the [Main Player](#) tab, Studio will not fade the current track when another track is started manually. Studio will still apply automatic fade in the following situations.

- While in automation mode.
- When 2 consecutive tracks are checked and the next track starts automatically.
- When the next track is shorter than the remaining time of the current track.
- Play is stopped using the Stop button.

Note: [DSP's](#) in the *Main Player* tab will be disabled when *Use Mixer* is enabled, and DSP's in the *Mixer* tab will be disabled when *Use Mixer* is disabled.

Buffer Size: The *Buffer Size* determines the size of the Windows Audio or ASIO buffer. The default of 500ms for Windows Audio is recommended for most PC's. Fast modern computers may handle a smaller buffer down to 200ms. Slow PC's or PC's with high CPU utilization may require a larger buffer.

A buffer too small may result in small pauses or stuttering in the audio, and the [Played Log](#) reporting Windows Audio Buffer Underrun messages.

For an ASIO device, the default is 26ms and may be adjusted between 13,26,39, and 52ms. These correspond to 576, 1152, 1728, and 2304 samples. 52ms may not be supported by some ASIO drivers.

A large buffer will result in higher latency, less accurate voice track overlap timing with short tracks, and will likely cause a short pause after a track that is shorter than the buffer size in duration. A high *Engine CPU Priority* (below) usually allows for a smaller buffer to be selected.

This option may be modified only when play is stopped.

Sample Rate (44100/48000): This option is only available when *Use Mixer* is enabled above. For mixing audio from multiple players to be possible, all audio needs to be at the same sample rate. Any audio files that are not at the selected sample rate will be resampled during playback. This can reduce sound quality and increase CPU usage, so only change this option when the bulk of your audio files are not at the standard CD sample rate of 44100Hz.

Note 1: The Sound Solution and Tomass Limiter compressor/limiter [DSP's](#) only support a sample rate of 44100.

Note 2: The resampling engine has 3 methods with differing quality and CPU usage. See [Resample Quality](#) in the *Advanced options*.

Engine CPU Priority: Specifies how much CPU priority is given to the audio playback engine when other tasks are running on the computer. The default center setting is recommended for most cases. This will protect against other applications using too much of the CPU and causing audio pauses or stuttering.

A *High* setting may be useful when using a small *Buffer Size*. There should not be any need to change this option to *Normal*.

Tabs

Main Player: This tab controls the output for all songs and spots in the playlist. The main player incorporates 2 players internally which alternate for each track. The Playing Now / Next Track indicators at the top of the Studio window shows which player number is currently being used.

When [Use Mixer](#) is unchecked, Device 1 & Device 2 may be set to different sound devices for manual control over fading using a hardware mixer.

Song Pitch/Speed: Adjusts the speed of playback by up to +/- 10%. Only tracks that appear in green (category tracks), along with any voice tracks that overlap songs, and *Hooks*, will be affected by this option. Carts and optionally Spots will not be adjusted. A [Break Note Code](#) may be scheduled in the playlist to change the speed at different times of the day.

Include Spots: When checked, spots will also change speed.

Studio can override the speed setting when [Auto Speed](#) is enabled in the Advanced options.

Voice Track Player (*Studio Pro only*): This output is used for all voice tracks, voice intros, and voice outros in the playlist. These tracks appear pink with a microphone icon.

Cart Player: This tab controls the output of [carts](#), and also [Cart Break Notes](#) scheduled in the playlist. Two players are used, one for standard carts and one for music bed carts.

When [Use Mixer](#) is unchecked, Device 1 is used for standard carts, Device 2 for music bed carts.

Mic Output: This tab controls the output for the [Mic Input](#) configured on the [Input](#) page.

Exclude Carts is unique to this tab. When checked, non-music bed Carts will not be faded/ducked when the Mic Input function is switched on. See [MP Volume Reduction](#) below.

Line Output: This tab controls the output for the [Line Input](#) configured on the [Input](#) page.

Include in Monitor Audio is a checkbox option to enable or disable the Line Input options from being heard out the *Audio Monitor Device* (below).

Mixer: This controls the audio output from the Mixer. Audio passes through the Mixer only when the [Use Mixer](#) checkbox is checked above. Using the mixer has benefits for DSP processing and internet streaming discussed below.

When the **Continuous Stream** checkbox is checked, silence is passed through the DSP, and the output device is kept open continuously. This may be useful with some soundcards which cause a clicking noise when opening and closing the audio device. Note that play must be stopped to change this option.

This option is also useful when streaming on the internet, if the stream encoder is set to record the audio from the DSP chain direct from Studio. *Continuous Stream* checked will ensure audio data is being sent to the stream encoder at all times even when no players are playing. If there is a delay starting a track in live assistance mode, this should prevent the stream encoder disconnecting from the stream server and disconnecting your listeners. But this option should be disabled when using our *Streamer* encoder which records the audio from the soundcard.

Note: Enabling *Continuous Stream* will cause a delay when starting play in live assistance mode. The length of delay is the size of the output [Buffer Size](#) (half a second by default).

Audio Monitor Device: When using the *Mic Input* or *Line Input* features, the usual output will contain a half second delay of the mic audio (with default buffer settings) which makes it virtually impossible to monitor with headphones. This is due to required input and output DirectSound buffering. A separate monitor output is available which combines all the players except the *Mic Output* and optionally excludes the *Line Output*.

This *Monitor Device* is best set to a separate soundcard or channel, but can be the same as the mixer device when used in combination with the *Mute Mixer* and *Toggle Monitor* options in the [Mic Input](#) options.

The Audio Monitor may be switched on and off manually from the [Controls menu](#).

Clock Offset: This option only appears when the *Device* (below) is set to "Null Output". When "Null Output" is selected, Studio uses the computer clock to determine the speed of playback. Computer clocks are often not as accurate as those in soundcards, which can cause stream pre-buffering (buffer underrun), or audio skipping (buffer overrun) for listeners.

Positive values will play faster and negative slower. A value of 1 is a roughly 0.01% change of speed. Trial and error is required to find the best setting. Typical values will usually be between -5 and 5.

Record: This is used to configure the recording of audio to a disk file. See [Record Options](#).

Common Options

Device: The output device or soundcard used to output the audio for the selected player.

When the Studio *Mixer* is being used, "Null Output" and ASIO devices are available for selection.

Null Output will not output the audio to any device, however the audio still passes through the DSP and streams may be encoded without any soundcard installed.

Any ASIO devices will appear after the Windows Audio devices in the drop down list. The first 2 channels of the device will be used only, for left/right stereo.

ASIO provides low latency playback and potentially better quality by bypassing the Windows Mixer. Some soundcards come with an ASIO driver. For those that do not, you can try installing the [ASIO4ALL](#) driver which works with most soundcards.

Output Mixer (*button*): Opens the Windows Sound dialog. On the Mixer tab, if an ASIO device is currently active (playing), this will instead open the ASIO control panel if one exists.

Volume: The volume of the 5 individual outputs may be adjusted, as well as the Mixer output volume. The player volumes are utilized after the DSP's and before the Mixer DSP. Generally all player volume settings should be set to maximum. This adjustment was designed for in-store use where voice tracks and the microphone often require a higher volume than the background music.

The Volume control on the *Mixer* tab affects the volume to the [Recording](#) facility, and the output to the soundcard. The volume entering the DSP's are not affected by the Mixer volume control, so streaming audio is not affected.

MP Volume Reduction: The volume of the *Main Player* is reduced by the selected decibel value when this player is playing. This reduces the volume of songs playing so voice tracks, carts, and the microphone announcements are clearly heard. 0db represents no change, and -INF (infinity) represents fully silenced.

Reduction Speed: The speed of the volume reduction and restoration when this player is starting and stopping.

Digital Signal Processors (DSP): Each player, plus the *Mixer*, provides the facility to apply one or more audio DSP plugins. The audio enters the DSP system from the [Input](#) stage before being sent to the output stage.

This may be used to apply some audio compression/limiting to the audio. These processors are basically designed to increase the volume of low volume pieces in the audio to produce an even volume. The DSP system is also used to encode internet streams.

Studio only supports DSP plugins designed for the Winamp Media Player. However, support for one 32-bit VST plugin is supported. See the [DSP](#) operation chapter for more details on this, plus details of the plugins included with *Studio*.

Multiple DSP plugins are supported for each player, however, normally all audio processing should be done on the *Mixer* tab with the [Use Mixer](#) checkbox checked.

Selecting DSP's on multiple player tabs is possible but not recommended. Most Winamp DSP plugins store their configuration data in the application folder, not the plugin folder, so different configurations for different players are often not possible. The included plugins *Sound Solution* and the *Tomass Limiter* work this way, so it is not possible to have different compression settings for each player. This is also very taxing on the CPU and can cause audio issues, therefore it is best to enable the *Mixer* which combines the audio from all 7 outputs into one audio stream before passing through the DSP's on the *Mixer tab*, and output to the sound device.

The [Use Mixer](#) checkbox should also be checked when utilizing [SPL Encoder](#) for stream encoding from Studio directly. This enables the audio from all players to be streamed digitally. The alternative is to encode the audio from the soundcard, but this requires conversion from digital to analogue and back to digital via the soundcard, and sound quality can be significantly reduced depending on the quality of the soundcard. See the [Internet Streaming](#) operation chapter.

The audio is processed in a chain from the first checked DSP, down the list, and out the last checked DSP. It is possible to change the order of the DSP's in the list via drag and drop, and by using the arrow keys to the left.

Ensure the compressor/limiter DSP appears before the stream encoder in the list, otherwise the stream will not include the processed audio.

A [break note code](#) may be scheduled in a playlist to toggle a DSP (in the Mixer tab) on or off at specific times.

DSP Plugin DLL's can be manually copied to the Program Files\StationPlaylist\Engine**Plugins** folder. When installing a plugin using an installer, ensure the install folder is Program Files\StationPlaylist**Engine**.

Only some of the Winamp API is implemented so it is possible some 3rd party DSP plugins may not operate correctly. Tempo and pitch DSP plugins are not supported.

Refresh (button): This will load any newly installed DSP plugins. DSP plugins should be installed to the *StationPlaylist\Engine\Plugins* folder, or Winamp folder. See the [DSP chapter](#) for more information.

Configure (button): This will configure the highlighted plugin if one is highlighted, otherwise it will configure the first checked plugin.

Note: Some DSP configuration windows are modal, which will prevent *Studio* from loading the next track while it is open.

Record Options

Studio supports recording the audio produced directly from Studio, or from the soundcard, to an audio file. This may be used to record a live show for scheduling at a later time, or for writing to a CD.

WAV, Ogg Vorbis, and MP3 formats are supported at 16 bits and 44100 hertz sample rate. Ogg Vorbis is similar to MP3 except it provides better sound quality at smaller file sizes.

An option exists on the [Mic Input](#) tab to automatically start recording while the *Mic Button* is activated, and stop recording when deactivated.

Audio Source:

Disabled: Disable the recording feature. A *Cue Sheet* can still be created with no audio file (see below).

Studio Mixer before/after DSP: These options are only available when the [Use Mixer](#) checkbox is checked. The audio is taken directly from Studio's internal mixer in a digital form before or after it passes through the Mixer DSP's. No soundcard is used. This will produce the best sound quality as there is no analog/digital conversions.

Audio before the DSP will not contain any audio processing from any enabled DSP processors. Audio after the DSP will contain processed audio.

SPL Recorder: Loads the [SPL Recorder](#) and automatically starts recording from the pre-selected sound device configured in the recorder. Studio supports playing timeshifted audio currently being recorded in *SPL Recorder*.

With either of the above 2 items selected, the [Record to file](#) menu item on the *Controls Menu* will be enabled. This toggles recording on and off. The *R [break note code](#) may also be scheduled to automatically start and end recording of a show.

When using the break note code to start recording, *SPL Recorder* will be loaded minimized so as to not distract operators.

Output Folder: The folder where the audio files will be stored. The folder must exist. Click the [...] button to browse or create a folder.

File Format: The template used to generate the filename to store the recorded audio. Standard Windows date and time formatting specifiers may be used to generate a new filename each time the record function is activated. Click the [Info] button for a list of the commonly used specifiers. A list is also [available here](#).

Note: When using date/time specifiers, characters that are not date/time specifiers must be enclosed in double quotation marks.
eg. "Archive-"ymmdd-hhnn".ogg"

The file extension must end in ".mp3", ".wav", or ".ogg".

Create Cue Sheet: This is useful if recording an automated, usually a voice tracked show, into one big audio file to be played back at a later time, or distributed to other stations who are also using *StationPlaylist Studio*. The artist, title, album, and start time of each song is stored in the cue sheet file so this information can be displayed and fed to the [Now Playing](#) system as if playing individual song files. Also see the [Playing Tracks](#) chapter.

The cue sheet is stored in the same folder as the audio file with the same filename but with a .cue file extension. Recording needs to be continuous without pauses once play starts otherwise the timings will be incorrect. Only songs are usually written to the Cue file (no spots), but this depends on the *Include tracks other than songs over xxx seconds* [Now Playing](#) option.

A cue sheet can be output when the recording feature is disabled. This may be useful if some other software is creating the audio file. In this situation, the [Controls menu](#) *Record to file* toggle is replaced with a *Create Cue Sheet* toggle.

Playing internet streams can also create a cue sheet based on the stream metadata.

UTF-8 Unicode encoding is used for non-ASCII characters.

Convert to Mono: This option is available when the *Audio Source* above is set to one of the *Studio Mixer* options. Otherwise the settings in *SPL Recorder* are used. Mono files will reduce the file size.

Bitrate: This option is available when the *Audio Source* above is set to one of the *Studio Mixer* options. Otherwise the settings in *SPL Recorder* are used. When recording an Ogg or MP3 file, the bitrate affects the sound quality and size of the resulting file. Values range from negative 2 through +10. Values of 3 or greater should be adequate for rebroadcasting.

File Mode: This option is available when the *Audio Source* above is set to one of the *Studio Mixer* options. Otherwise the file will be overwritten by *SPL Recorder*. Select *Overwrite* to delete the previous file if it exists, when recording is started. Select *Append* to append the audio to the end of a file if it exists, when recording is started.

Plugins

Studio supports DLL plugins which software developers may produce to extend the capabilities of *Studio*. Developers will need to contact us for an API.

Plugins are available for integration with the D&R [Webstation](#), [Airlite](#), and [Airence](#) USB broadcast mixer consoles. Download the 3rd party plugin and documentation from their [website](#).

The plugin architecture and API is based on the Winamp General Purpose Plugin standard, although this has been extended to provide several additional functions.

Some plugins written for Winamp may be used with *Studio*, however, most Winamp General plugins are not likely to work as only some of the Winamp API is supported. We will consider adding additional API functions in future releases.

Plugins must be manually installed to a subfolder called *Plugins* under the *Studio* installation folder. All installed plugins will appear on the Plugins page in *Studio's* Options.

Configure (*button*): Opens the configuration dialog for the selected plugin, if the plugin provides one.

Windows Class: This is used for communication from 3rd party applications. Some of the API may be used by external applications rather than DLL plugins.

Studio must be restarted for a change in class name to take effect.

Winamp (*button*): Changes the Windows Class name to emulate Winamp's class name. This may be required when using 3rd party applications designed for use with Winamp.

Reset (*button*): Changes the Windows Class name to the default *SPLStudio*.

Listener Statistics

For internet stations, *Studio* can read the current number of listeners connected to some stream distribution servers, and keep a total of the listener hours (TLH) for the day and month to date.

Once configured, the current number of listeners to all streams is displayed in the status bar at the bottom right of the main Studio window. The details may also be viewed as a separate window toggled from the [View menu](#).

The number of listeners may be output in the [Now Playing](#) facility, and the [Track Log](#) using the %l (lowercase L) parameter.

The *Total Listener Hours* at the end of every day is output to the [Played Log](#), and the month-to-date listener hours is output to the log at the end of the month.

The total combined TLH and MTD TLH figures are stored and calculated independently. Deleting a server will not reduce these figures.

Configuration

Server Type: Pull down the list to select the type of stream distribution server, Shoutcast v1, Shoutcast v2, Icecast, Windows Media, Live365, Streamer p2p, Casterstats Proxy, Radionomy, or Generic XML.

Generic XML requires a node named "current" or "listeners" with the number of listeners. eg.
<listeners>165</listeners>

Note: For Windows Media servers, MediaPoint Manager (MPM) must be installed by the hosting company on their server before the listener total can be read by Studio.

Add: A dialog will appear to enter the *Host Name* or IP address, *TCP Port*, *Username*, *Password*, and *Mount Point* of the selected server type. Some of these details are not required for some server types. Enter the details provided by your stream hosting company.

For Windows Media servers, *Mount Point* represents the Alias or Publishing Point in MediaPoint Manager.

For Icecast servers, the administrator username and password is required. The username is often **admin** and the password is often the same as the encoder password.

For KH branch Icecast servers, the mount username and password may be used.

If all details have been entered correctly, the number of listeners will appear in the *Current* column at the next update. If the stream server is up but the encoder is not sending a stream, "Disconnected" will appear. If the stream server is down or cannot be accessed, "Error" will appear. An icon appears to the left based on these 3 possible states -   or " " .

Edit (*button*): Edit the selected server.

Delete (*button*): Delete the selected server.

Update Interval: The number of seconds between each access of the servers to read the current number of listeners. The default is 60 seconds. A longer period will result in less accurate TLH values, but will use slightly less internet bandwidth.

Log Errors (*checkbox*): When checked, any servers that are down or not receiving a stream will generate an error in the [Played Log](#) and activate the Studio error button.

Show Current Listeners (*checkbox*): When checked, the current number of listeners appear in the Studio status bar, and the Listeners Stats window on the View menu will be available. Unchecking may be useful to not discourage DJ's while doing a live show when there are few listeners.

Reset Peak (*right-click menu item*): Resets the *Peak* number of listeners value for the selected server.

Reset Peaks (*button*): Reset all listener peaks and the total peak value.

Now Playing

Details of the current track playing, plus previous tracks played and future tracks scheduled to play, may be output to disk files, stream servers, web and TCP servers, and hardware devices, at the start of each track. Two disk files may be output and optionally uploaded to a web server via FTP. A [Mini Web Server](#) is also available in Studio which can supply *Now Playing* information.

Include tracks other than songs over xxx seconds: Prevents jingles and other short spots from activating the *Now Playing* system. Only spots, voice tracks, and break notes that exceed this duration will be output, with the exception of break notes mentioned below. Tracks with a CD icon (songs) are always output. Set the option to zero to output all tracks.

[Break Note Codes](#) that insert audio files, such as **Request* and **Play*, which also include optional text after the code, will be included in the future tracks to play. eg. **Request Another Request* will show "Another Request" in a future title.

Any tracks with the word *metadata* in the Category name will also be output regardless of duration. This may be useful when scheduling spots in *StationPlaylist Creator* which need to be output. Add the word *metadata* to the name of the *Spot Group*.

A break note with the word **Silent** or **Silence** (in any case) in the Note will not activate the *Now Playing* system.

Replace blank Album with: With a song/category track, the value assigned to the %A *Album Artist* parameter (below) will be replaced with this value when one does not exist in the [Track Properties](#). The word "Single" is required by some stream hosting companies when a song is not from an album.

Move parenthesized text in Artist to Title: When checked, any text to the right of (and including) an opening parenthesis "(" will be removed from the artist and appended to the end of the title when output in the *Now Playing* system. This may help with song identification in 3rd party databases when a featuring artist is included within parentheses.

Replace parameters when play is stopped: When checked, the %a (song artist), %t (song title), and %U1 (URL 1) will be replaced with the selected text when play is stopped. The %t field may contain %u which is replaced with the current [Studio User](#). At default settings, a template containing %n will output *Live - Wolfman Jack* when play is stopped, for example.

Voice Track Output: Controls what, if any, metadata is output when a voice track is playing, including Song/Voice Intro/Outro spots scheduled in *StationPlaylist Creator*.

None: Nothing is output when a voice track plays.

VT Title: Output whatever is set in the Title field in Track Properties.

Live Text: Output whatever is set in the option above *Replace parameters when play is stopped*. This emulates a live show.

Include Voice Intro/Outro Spots: When enabled, these Spot Group tracks are considered the same as voice tracks with regard to the *Voice Track Output* option above. When disabled, only voice tracks recorded in VT Recorder will be controlled by the option.

%d Date Format: The formatting of the date for the %d parameter below. All standard Windows date specifiers are supported. Click the *Info* button to see a list of the common date/time specifiers, or see [Playlist Filename Format](#).

%h Time Format: The formatting of the time for the %h parameter below. All standard Windows date specifiers are supported.

Duration: If not set to zero, and a **Metadata=break note code* is set, when a song starts, the song metadata will appear for this duration period and then be replaced with the alternative metadata for the remaining time. This will continue indefinitely with every song until a blank **Metadata=* is executed to clear the alternative text. This may be useful to display a paid sponsorship message after say 30 seconds from the start of each song. The maximum *Duration* is 180 seconds.

Delay: Delays *Now Playing* activating at a change of track by the specified number of seconds. This may be required to delay metadata/RDS updates when using profanity delay devices, for example, which delay the audio.

Character Encoding: UTF-8 is required to output non-ANSI characters in song artists and titles.

Template Parameters:

User-defined templates are used to define the structure of the various outputs . Replaceable parameters are used to designate where and what information is to be inserted in the files or metadata output.

Parameter	Description
%a	Song artist
%t	Song title
%n	Song Artist - Song Title. If the artist or title is blank, the hyphen (-) symbol is not output.
%s	Track duration in the format <i>mm:ss</i>
%S	Track duration in seconds.
%d	The date the track started playing, in the format specified above .
%h	The time the track started playing, in the format specified above .
%c	Category/Spot Group name passed in the playlist.
%z	Track Type. 0 = song, 1 = spot, 2 = jingle, 3 = break note, 4 = live DJ, 5 = stream, 7 = voice intro, 8 = voice outro, 9 = voice track, 10 = commercial intro, 11 = commercial.
%f	Filename without the path and extension.
%u	Current user name as displayed in the window title.
%p	Current temperature. See the Time & Temperature options page.
%k	Feels Like temperature
%m	Current humidity
%i	Affiliate ID from the Music Affiliate Integration options.
%q	Song requester Name. The name entered when requesting a song via the php website script .
%v	Song requester Location. The location entered when requesting a song via the php website script .
%l	(lowercase L) The current number of listeners to all streams configured on the Listeners Stats page.
%A	Album artist
%T	Album title
%Y	Year
%G	Genre
%M	Mood
%P	Composer
%D	Conductor
%C	Comments
%O	Other information
%U1	The file information recorded for URL 1 ,usually a cover image.
%U2	The file information recorded for URL 2, often a purchase link.
%L	Record Label
%E	CD Code
%I	ISRC
%N	Client
%Z	Language
%X	Extra text set previously in a *Extra= break note code .
%r	Insert a new line (carriage return & linefeed CR/LF).
%b	Insert a tab character.

%-1..9n	Previous songs played. All the above parameters may be used to output information for the last 9 tracks played. eg. %-1a = previous track artist
%+1..+9n	Future songs to play in the current playlist. All the above parameters may be used to output information for the next 9 tracks to play. eg. %+1t = next track title
%%	Use %% to include a % character without it being replaced with a parameter value. eg. %%abc will produce %abc . Without the additional %, the result would be {artist}bc
\$hh	A character in hexadecimal notation. eg. \$0A will be replaced with a line feed.
\$\$	Use \$\$ to include a \$ character without it being regarded as a hexadecimal character.

The uppercase parameters, with the exception of **%S**, obtain the information from reading the file tag information stored within the audio file. This information may be maintained in the [Track Properties](#) dialog.

File Output

This tab on the *Now Playing* page contains two methods for sending track playing information to text files when a change of track occurs.

These files may be uploaded via FTP or supplied via the [Mini Web Server](#) at each change of track.

Primary Output

This feature creates a file at every change of track based on a template file containing parameters for each piece of track information. Any format structure may be output in the file, such as html, xml, text, etc.

This is often used to generate a *Now Playing* HTML document for a website, which refreshes every few seconds. This is often included inside an existing webpage using an in-line frame. Visitors to your homepage can view information about the song currently playing and optionally see what has played previously, and the tracks that will play.

Enabled: Check to enable the *Primary Output*.

Template (*combo box*): Select an existing template from the pull down list. Template files are stored in the Studio\Templates folder on the hard drive. Several example templates are installed with Studio, or you can create your own.

The template dictates what the resulting file or web page will look like, including layout, colors, fonts, and the track details to include. Some templates will popup a dialog box asking for your station name which will be output in the webpage.

Data will be output in UTF-8 encoding for non-ASCII characters. Templates should specify UTF-8 encoding in the file. For example...

HTML4: `<meta http-equiv="content-type" content="text/html; charset=utf-8">`

HTML5: `<meta charset="utf-8">`

XML: `<?xml version="1.0" encoding="utf-8"?>`

The "CD Links" templates included with Studio are designed for the [Music Affiliate Integration](#) system. These supports automatic CD or MP3 cover images and purchase links on the generated webpage.

View: Click to button to view the selected template in your web browser.

Edit: Click the button to edit the selected template. This will load the template into the webpage editor registered in Windows, if one is installed, such as Microsoft FrontPage. If no HTML editor is installed, the template will be loaded into Notepad. Knowledge of HTML coding will be required when using Notepad.

The design of the template may be completely modified to suit. The template should contain some of the [Template Parameters](#).

When modifying templates provided with Studio, the modified template should be saved with a new name rather than overwriting our examples. Then select the new template from the pull down list.

We invite user designed templates to be uploaded to our user discussion group website for sharing with other users. <https://groups.yahoo.com/neo/groups/StationPlaylist/files/Templates>

Upload via FTP: When checked, the file below will be uploaded to a web server via FTP using the *FTP Settings* below.

Filename: The path and filename to store the local copy of the *Primary Output* file. This is required even when uploading to an FTP server.

The file extension will change to the file extension of the selected *Template*.

As mentioned in the *Template* option above, some file types are UTF-8 encoded.

View (*button*): Displays the current file above in a web browser, or whatever viewer is available for the specified file extension.

Secondary Output (*Pro edition only*)

When enabled, a single line of text is written to a text file at each change of track. The file may contain one or several lines of tracks. As each track plays, a new line is added to the top of the file. Older tracks will drop off the end as new tracks are added to the beginning.

Enabled: Check to enable the *Secondary Output*.

Maximum Tracks: Specifies the maximum number of tracks that may be stored in the file.

RDS/PS Format: Intelligent formatting will be applied to the text to maximize readability on an 8 character display, such as PS text on RDS radio tuners.

Upload via FTP: When checked, the file below will be uploaded to a web server via FTP using the *FTP Settings* below.

Template: A single line template which may contain static text and any of the parameters specified on the previous page.

Filename: The path and filename to store the local copy of the *Secondary Output* file. This is required even when uploading to an FTP server. File extensions .TXT, .JSO, and .JSON will not be UTF-8 encoded.

View (*button*): Displays the current file above in Notepad, or whatever viewer is available for the specified file extension.

FTP Settings

Server The server IP or host name. eg. **myserver.com**. Do not enter **ftp://**.

Path: The path to an existing folder on the FTP server. This is where the file will be stored.
eg. /public_html

Port: The TCP/IP port number to use. This is usually 21 for FTP.

Username: The username required to log in to the server.

Password: The password to required to log into the server.

Passive: Some network or firewall configurations require passive mode to access FTP servers.

Secure: Uploads to FTP servers supporting TLS and SSL security protocols.

Run a program

Execute an EXE program at each change of track. Parameters can contain track information.

Stream Metadata

This tab on the *Now Playing* page contains methods for sending track information to stream distribution servers, web servers, other software, and devices with a TCP server or serial port.

All replaceable [parameters](#) may be used in the templates and URL's.

Output to DSP Encoder: When using a stream encoder DSP attached to *Studio*, this is the most simple way to send metadata. The metadata is included within the stream itself and sent along with the audio.

The default template of %n will output the artist - title.

Output via HTTP request: This facility sends metadata directly to servers such as stream distribution servers via HTTP or HTTPS requests. This is particularly useful if the stream is being encoded on a different PC to that running *Studio*. It is also useful for Live365 subscribers as it sends additional required information, specifically album name and song duration which the Live365 server utilizes.

Up to 4 servers may be updated with the current track playing information.

Predefined templates are available in the drop down list for Icecast Server, Shoutcast Server, Cirrus Streaming, TuneIn, Spintron, TuneGenie, RadioPlayer, Aiir, AutoPost Twitter, and AutoPost Facebook, SoCast, All In Media (AIM). A dialog will then popup asking for the Host Name or IP, TCP port, Username, Password, and Mount Point. Some of these details are not required for some server types. Enter these details provided by your stream hosting company.

The AutoPost items work with the commercial service www.autopo.st for posting metadata to social media.

Spintron is version 2 of their API.

Other types of servers may be updated by manually entering the required URL.

Note: The *Stream ID* is used for Shoutcast v2 servers and ignored for Shoutcast v1.

When updating a stream server, the *Output to DSP Encoder* above should usually be disabled to prevent the stream server being updated twice for each track.

Output to Serial Port (*Studio Pro*): This option may be used to update hardware devices such as an RDS encoder with *Now Playing* information via a serial port. The serial port must first be configured on the [Communications](#) page.

Output via TCP/UDP (*Studio Pro*): *Now Playing* information may be output to devices and servers that accept plain TCP or UDP data, such as RDS encoders and some stream hosting companies.

Most TCP and UDP devices require a carriage return and line feed sent after the text by appending **\$0A\$0D** to the Template.

Music Affiliate Integration

This feature does an automatic database lookup at Apple Music to obtain album or track images and website/purchase links, which may be used for displaying on your website.

Once enabled, as each track is played for the first time, an online search is performed in the Apple Music database for an album or song matching the track information. If found, the track ID is stored in the *CD Code* field of the [Track Properties](#), and the cover image and website URL's are written to the URL1 and URL2 fields. If no information is found, the *CD Code* is set to "0000000000".

Note that enabling this option will delay the output of some *Now Playing* features.

A search is only performed if the *URL1* and *URL2* fields are blank, or the URL in the *URL1* field becomes invalid. A manual search may also be done in [Track Properties](#), or URL's may be entered manually.

If available, the release year and genre of the track is also read from the database and stored with the track.

Once the URL's are stored, one of the "CD Links" [templates](#) included with *Studio* may be used to display CD cover images with purchase links on your website. Your listeners viewing your webpage will see the cover image of the current song playing and the covers of up to 9 of the previous songs played.

Affiliate: Only *Apple Music* is available.

Always retry when CD not found: When unchecked, *Studio* will attempt to find a matching track in the database only once. If not found, no further attempts are made when the same track is played again.

When checked, and no database details were found previously for a track, *Studio* will attempt a lookup of the database every time the track plays. Once found, *Studio* will not search the database again for that track, unless a URL becomes invalid in the future.

We recommend this is only checked when all tracks have correct information for the *Song Artist and Album Title*. Otherwise this option may use a significant amount of internet traffic over a month.

Prefer: Albums or Tracks. *Studio* will attempt to find the album or song first in the database, using the *Album Artist* or *Song Artist*, and *Album Title* or *Song Title* fields in [Track Properties](#). However, if *Album* is selected but one is not found, it will try again searching for the track, and vice versa.

Partner Token: Enter this if you have applied to Apple Music to become a partner and receive commission from each sale. Otherwise leave this field blank.

Image Size: Select the size of image to retrieve.

- *Small:* 80x80 pixels
- *Medium:* 160x160
- *Large:* 300x300
- *Extra Large:* 600x600

No Image URL: When a database search returns no match or no image, this image URL will be added to the *URL1* field for the track to prevent blank images appearing on the *Now Playing* webpage.

Track Info & Logging

Log Formatting

The options here control the information output to log files when tracks are played. See the [Logging](#) operations chapter for more details on the logging system.

Every track regardless of track type, plus other information are written to the Played Log in a fixed comma separated values (CSV) structure. This structure cannot be changed. A new file is created at midnight and named in the format **SLog-yymmdd.csv**. eg. The Played Log for July 31, 2020 would be **SLog-200731.CSV**. The log files are stored in the folder specified in the [Log Folder](#) option. These logs may be viewed in the [Played Log Viewer](#) available from the [View menu](#).

Two other log files may also be created, a Track Log and Spot Log. The Track Log will contain only the songs/category items and may be useful for royalty reporting purposes. The Spot Log is only available in the Pro edition of *Studio* and contains only spot tracks including jingles, voice tracks, and advertisements.

The structure of these 2 files are user-definable using replaceable parameters. The default structure is comma separated values (CSV) which may be loaded directly into a spreadsheet.

Here are the supported parameters:

Parameter	Description	Parameter	Description
%d	played date	%u	current user
%m	played time	%h	scheduled date/time
%f	filename (path/extn)	%F	filename (no path/extn)
%x	track type	%c	category/spot group name
%a	song artist	%t	song title
%s	duration (hh:mm:ss)	%S	duration (seconds)
%l	current stream listeners	%Y	year
%A	album artist	%T	album title
%P	composer	%C	comments

%D	conductor	%G	genre
%L	record label	%M	mood
%I	ISRC (CD barcode)	%N	client
%O	other	%E	CD code (eg. EAN/UPC)
%Z	region	%R	gender
%r	new line (CR/LF)	%b	tab

The information for all the uppercase parameters, with the exception of %S, is obtained by reading the file tag of each audio file played. The information for the lowercase parameters are usually read from the playlist as each file is loaded into Studio.

When using the CSV format, it is important to place "quotation marks" around text which may contain commas, otherwise the data will appear in incorrect columns in a spreadsheet. An alternative format is to use tabs (%b) between each parameter.

When loaded into a spreadsheet, the information may be filtered or manipulated for any type of reporting that is required. Advertisement spots may be filtered to provide reports for billing purposes, for example.

Character Encoding: This affects the *Separate Track Log* and *Separate Spot Log* only. The *Played Log* is always UTF-8 encoded. UTF-8 is required to output non-ANSI characters in song artists and titles, but some log readers may not support it.

Separate Track Log: Creates a separate file usually containing only the songs/category items played which may be useful for royalty reporting purposes. A new file is created every day at midnight and named in the structure **STrack-yyymmdd.csv**.

Include Spots: Includes in the Track Log all spots and break notes that play provided they have a duration. This may be useful for 3rd party services, such as archiving services, that require the start time and duration of every item that played but cannot work with the Played Log below.

Separate Spot Log (Studio Pro): Creates a separate file containing the spot tracks played including jingles, voice tracks, and advertisements. A new file is created every day at midnight and named in the structure **SSpot-yyymmdd.csv**. The default Spot Log structure is required when reconciling commercials scheduled by traffic/billing software, and imported by the *Traffic Log Importer* in *StationPlaylist Creator*.

Ads Only: When *Separate Spot Log* is enabled above, this option will only log the advertisements and exclude all other types of spots.

Played Log Format: This is displayed for informational purposes only. It cannot be altered. The files are named in the structure **SLog-yyymmdd.csv**. All tracks, errors, warnings, and informational items are written to this log.

Log Cart Player (Studio Pro): Add all cart tracks played to the Played Log file as *type 4*.

Log Skipped Tracks: Add all tracks skipped at the end of an hour to the Played Log file. When the [Hour Marker](#) option is set to *Instant*, the track truncated at the end of the hour is also reported in the log, along with the remaining time. (*type 7*).

Log Cue Sheet Updates: When checked, Studio will output to the Played Log and any other enabled log files when new track information is read from a [cue sheet](#). When an audio file has a cue sheet, the physical file being played will not be included in the log as if individual files had played. When unchecked, only the physical file information will be included in the log.

Log Incoming Stream Metadata: When checked and playing a stream, each change of metadata read from the stream will be output to the played logs as a song.

Delete Log Files over x days old: Studio deletes old log files every day at midnight that are older than this number of days. Log files may need to be kept a minimum of 3 months for music licensing reporting requirements. The maximum setting is 999 days. Set to 0 to disable deletion of the log files and store them indefinitely.

Track Information Popup

This facility defines the information appears on the screen when the mouse is moved over a track icon in the [Playlist Viewer](#), [Track Insert dialog](#), and [Listener Requests](#). This is the icon that appears to the left of the artist. The information will be displayed in a tool tip which will remain on the screen until the mouse is moved away from the icon.

The order of the information appearing in the tool tip may be altered by moving the position of the items. Drag and drop each item to a new position using the mouse.

Apart from audio files, full Break Note descriptions will also be displayed in a tool tip. This may be used to include an advertisement for the DJ to read live, for example.

Most of the audio file information is obtained from the file tags, if available. Most of the information items are obvious, except perhaps for the following:

Scheduled Next: Displays the date and time when the track is scheduled to play next in the future, if at all.

Last Played: Displays the date and time the track was last played.

Scheduled Dates: Displays the date and time of the last 18 times the track was scheduled by *StationPlaylist Creator*.

Played Dates: Displays the date and time of the last 18 times the track was played by *StationPlaylist Studio*.

Track Ending: A Fade Speed is calculated as the length of time in milliseconds between the Segue DB and 12db lower than the Segue DB at the end of the track. This will give a good indication of the length of fade. Studio translates the numbers like this...

0-900	Cold
901-1400	Short Fade
1401-4000	Fade
4000+	Long Fade

Time & Temperature Announcements (Studio Pro)

Studio supports saying the current time, current temperature, "feels like" temperature and/or humidity, at specific positions in the playlist during automation. These are scheduled in the playlist using [break note codes](#). These features can give periods of automation a "live" atmosphere.

When enabled, the temperature is also displayed at the top right of the main window beside the current time. If a weather station is the [Source](#) of the temperature, the latest weather details are available by moving the mouse over the temperature.

For announcing the time or temperature, a number of audio files are required. Time announcement files and temperature announcement files may be purchased separately from our [website](#), or you may create you own.

Creating your own announcements can create the impression of a live DJ when they include additional information such as identifying the station, and optionally the DJ when using user based announcements. This is particularly true when also using voice tracking, or automated song introductions scheduled by *Creator Pro*.

Both time and temperature announcement files may exist for individual users (DJ's). This provides for different voices to be used at different times of the day for simulating a live DJ shift. Studio firstly looks for the file in a subfolder based on the *User Name*, under the relevant *Folder* option specified below. eg. C:\Time Files\Wolfman Jack. If no folder or file exists for the current user, *Studio* looks in the main *Folder*. eg. C:\Time Files. The current user may be changed automatically within a playlist by using the [User Name](#) break note code.

Play As Voice Tracks (Studio Pro): When checked, time & temperature announcements will be played with the *Voice Track Player* simultaneously with the instrumental beginning of songs (song ramp) that have been [intro-timed](#), identical to voice tracks. This simulates a DJ voice over which provides additional live atmosphere. When unchecked, the announcements will play in the *Main Player* sequentially with other tracks.

This option is not available when [Voice Track / Intro Overlapping](#) is disabled on the *Advanced* options page.

Time Announcements

File Format: Specifies the structure of the filename for selecting the correct time-of-day announcement file based on the current computer time.

The default format is: "*Time*"*hhnn*".*ogg*". *hh* represents the hour 00-23, or 01-12 when the *Hour Translation* setting below is set to 2 x 12 hours. The midnight hour 00 is translated to 12. *nn* represents the minute 00-59. *Ogg* is the default extension which matches the 720 time announcement files we provide for purchase from our [website](#). This extension may be changed

to any supported audio file extension, such as MP3 or WAV, if you plan to record your own files.

***Time** break notes are scheduled within the playlist, usually within a *Rotation* in *Creator*, to determine where the announcements are inserted.

The default format requires a filename such as *Time0730.ogg* which would be used at 7:30am and optionally at 7:30pm when using the *2 x 12 hours* setting.

Not all files need to exist if time announcements are not required at certain times of the day.

All standard Windows date and time specifiers may be used. See the [Playlist Filename Format](#) for a table of common specifiers. All constant characters must be enclosed within quotation marks so as to not be confused with specifiers.

An alternative filename format is: *"Time"nn".WAV"*. This format does not specify the hour, so only 60 time announcements are required for each minute of every hour. In this case, an example time announcement may be: "It's 15 minutes past the hour on [your station name]".

Hour Translation: With *2 x 12 hours* selected, a total of 720 audio files may exist to cover every minute of a 12 hour day. In this case, the same AM and PM time will use the same file. This is the required setting for the files purchased from our [website](#). Hours 01 to 12 are used. Hour 12 is used for the midnight hour.

With *24 hours* selected, a total of 1440 files is generally required. This can be useful to provide a more live atmosphere by specifying morning, afternoon, and evening in your time announcements. Hours 00 to 23 are used.

Folder: The path where the time-of-day announcement files are located. Subfolders for the current [Studio User](#) may be created to provide announcements in different voices at different times of the day. See the [Break Note Codes](#) chapter for more information.

Temperature & Weather

Source: Available sources are [GO! Temp Thermometer](#), [Weather.com PWS](#), and [OpenWeatherMap](#).

The *GO! Temp Thermometer* is a USB thermometer that plugs directly into the computer. It is available for purchase from [Vernier](#). Outside housing must be arranged separately. A 30 meter (115 feet) USB extension cable will likely be required. One may be [purchased here](#). A reading is taken every 5 seconds.

The *Weather.com PWS* option reads details from your own personal weather station contributing to the Weather.com network. You will need to enter your API Key (below).

The *OpenWeatherMap* option reads details from official city observation stations via the Internet.

These latter 2 sources require the Studio PC to have permanent access to the Internet. A reading is taken every 20 minutes.

Also read from the weather station if available is the wind direction and strength, humidity, and atmospheric pressure. This may be viewed by placing the mouse over the temperature display near the top right of the Studio window.

***Temp** and/or ***Feel** and/or ***Humid** break notes are scheduled within the playlist, usually within a *Rotation* in *Creator*, to determine where the announcements are inserted.

If a weather station has not sent an update for over 1 hour and 6 minutes, Studio will disable the temperature until it is updating again. This prevents incorrect temperatures from being displayed and broadcast using the ***Temp** break note, when the weather station is offline.

Station ID: This option is visible when *Weather.com PWS* or *OpenWeatherMap* is selected. For *Weather.com PWS*, enter your station ID manually. For *OpenWeatherMap*, you may click the [...] button to search for a weather station in your area.

The *Station ID* may be changed within the playlist using the ***Temp=** break note.

API Key: A valid key must be entered for the *Weather.com PWS* API. You may apply for and enter your own free *OpenWeatherMap* API Key to have updates occur more frequently, every 5 minutes.

File Format: Specifies the structure of the filename for selecting the correct temperature announcement file based on the current temperature, when using the [*Temp](#) break note in the playlist.

The default format is: *Temp%p.ogg*. %p represents the temperature rounded to the nearest whole number. *Ogg* is the default extension which matches the temperature announcement files we offer for purchase from our [website](#). This extension may be changed to any supported audio file extension, such as MP3 or WAV, if you are providing your own files.

The default format requires a filename such as *Temp33.ogg* which would be used when the temperature is 33 degrees.

Unlike the *Time Announcement File Format* above, quotation marks must not be included.

Feels Like: Specifies the structure of the filename for selecting the correct "feels like" temperature announcement file, when using the [*Feel](#) break note in the playlist.. This feature is not available for the GO! Temp Thermometer.

This temperature is either a wind chill or heat index calculated from the temperature, wind speed and humidity. This is only calculated with temperatures 10°C (50°F) or below and 26.7°C (80°F) and above.

The default format is: *Feel%k.ogg*. %k represents the "feels like" temperature rounded to the nearest whole number. *Ogg* is the default extension which matches the temperature announcement files we offer for purchase from our [website](#). This extension may be changed to any supported audio file extension, such as MP3 or WAV, if you are providing your own files.

The announcement files we sell are designed to be played after a **Temp* temperature announcement.

The default format requires a filename such as *Feel13.ogg* which would be played when the "feels like" temperature is 13 degrees.

Humidity: Specifies the structure of the filename for selecting the correct humidity announcement file, when using the [*Humid](#) break note in the playlist.

The default format is: *Humid%m.ogg*. %m represents the humidity percentage. *Ogg* is the default extension which matches the humidity audio files included in the temperature announcement files we offer for purchase from our [website](#). This extension may be changed to any supported audio file extension, such as MP3 or WAV, if you are providing your own files.

The announcement files we sell are designed to be played after a **Temp* temperature announcement.

The default format requires a filename such as *Humid60.ogg* which would be played when the humidity is 60%.

Ignore FL difference below: Only when the actual and "feels like" temperatures differ by at least this number of degrees will the "feels like" temperature be played via the **Feel* break note.

Scale: Select *Celsius* or *Fahrenheit*. This option also controls the units displayed for the wind speed and atmospheric pressure when the *Source* is a weather station. Celsius will display metric units and *Fahrenheit* will display imperial units.

Offset: This adjusts the temperature up or down from that read from the thermometer or weather station in 0.1 degree steps.

Folder: The path where the temperature announcement files are located. Subfolders for the current [Studio User](#) may be created to provide announcements in different voices at different times of the day.

Keyboard Controls

A single key from the keyboard may be assigned to the standard control functions. These are Play, Stop, Automate, Pause, Instant Stop, Microphone, Mic (No Fade), and Line-in, and Stop Cart. For more details on these controls, see the [Controls Menu](#).

Press a key on the keyboard while in the key box to change the selected key. Apart from the usual letters and numbers, the keys Enter, Space, Del, and Ins may also be used.

Note: The Space key is available in the *Playlist Viewer* to toggle selected tracks using the checkboxes in live assistance mode. Selecting the Space key here will disable selection toggling using the keyboard, but the mouse may still be used for this purpose.

Numeric Keypad

Studio may also be controlled using the numeric keypad. The following keys are fixed and cannot be changed. See the [Controls Menu](#) for details of these functions.

Key	Function
1-9	Main Carts 13-21 (as per alpha keyboard). NumLock must be active.
Ins	Automate toggle
Del	Stop
Enter	Play
+	Stop Cart
-	Microphone toggle
*	Pause
/	Next Track

Communications (Pro edition only)

Studio can communicate with peripheral devices via TCP communications, a serial port, USB/serial contact closure boards, and an Axia Livewire port. *Studio* can control a peripheral device such as an audio switch, and a peripheral device can control *Studio*, such as a satellite receiver or mixer console.

This options page is divided into 3 tabs - [TCP](#) (commands sent via a LAN), [Ports](#) (hardware ports and boards), and networked [Axia Livewire](#) devices. References to TCP below also refer to UDP.

Studio Commands: The following commands may be sent to Studio via TCP, UDP, HTTP*, a serial port, or used inside a script. The associated *Closure Function* in the table is the name used in the drop down selections in the [Contact Closure Input](#) and [Axia GPIO](#) settings. Several of these functions are also available from the [Controls menu](#).

Multiple commands may be specified by separating with a comma. In this case each command result will be returned on separate lines followed by a carriage return/line feed. Any commands that use an equal sign "=" should not be sent with other commands on the same line.

All commands are case insensitive.

Command	Closure Function	Description
Play	Play	Identical function to the Play button.
Stop	Stop	Stop play. The next track in the <i>Playlist Viewer</i> will be selected ready for play.
Instant Stop	Instant Stop	Stops all audio instantly with no fade.
Skip	Next Track	Starts the next track in the <i>Playlist Viewer</i> . If a track is currently playing, this command will fade out the track over a short period and the next track will be started. If play is stopped, the next track in the <i>Playlist Viewer</i> is selected.
Overlap Next	Overlap Next	Starts the next track without fading the current track.
AutoOn	Automate On	Switch Automation mode on if it is off. This will start play if play is stopped.
AutoOff	Automate Off	Switch Automation mode off if it is on.
Auto	Automate Toggle	Toggle automation between on and off.
MicOn	Mic On	Switch the Mic on if it is off.
MicOff	Mic Off	Switch the Mic off if it is on.
Mic	Mic Toggle	Toggle the Mic between on and off.
LineOn	Line-In On	Switch the Line-in on if it is off.
LineOff	Line-In Off	Switch the Line-in off if it is on.

Line	Line-In Toggle	Toggle the Line-in between on and off.
RecordOn	Record On	Switch Record To File on if it is off.
RecordOff	Record Off	Switch <i>Record To File</i> off if it is on.
Record	Record Toggle	Toggle <i>Record To File</i> between on and off.
ClockSync	Synchronize Clock	Synchronizes the computer clock to a specific time set in the Advanced options .
JumpTo1/2	Jump To 1/2	Jump the play position to a *Jump break note code above or below the current play position in the current hours playlist.
JumpNext	Jump Next	Jump the play position to the next *Jump break note below the current play position in the current hours playlist.
JumpBack	Jump Back	Jumps back to the track located just after the track that was playing during the last JumpTo1, JumpTo2, or JumpNext commands above. This may be useful to play a different set of files during a rain delay in live network programming, for example.
ClearPlaylist	(serial,script, TCP only)	Executes Clear All Playlists in Studio's File menu.
AppendPlaylist	(serial,script, TCP only)	Executes Append Next Playlist in Studio's File menu.
Pause	(serial,script, TCP only)	Toggle between paused and playing.
Mute	(serial,script, TCP only)	Toggles audio output to the soundcard on and off. DSP's and stream encoders will not be affected.
Deselect	(serial,script, TCP only)	Same as ESC key. Deselects all tracks in the Studio playlist. May be useful before AutoOn to have tracks start playing from the correct hours playlist.
SelectIndex	(serial,script, TCP only)	Selects or returns the current selected track in the Playlist Viewer by index number, where 0 is the first Hour Marker. eg. SelectIndex=2 will select the 2nd track. If no track is selected, the command returns -1. Can also select previous and next track using SelectIndex=- and SelectIndex=+.
SelectTitle	(serial,script, TCP only)	Selects the first track matching a title. eg. SelectTitle=Drops Of Jupiter.
CurrIndex	(serial,script, TCP only*)	Returns the position index of the current track playing. If no track is playing, returns -1
LastIndex	(serial,script, TCP only*)	Returns the position index of the last track in the Playlist Viewer.
StartHourIndex	(serial,script, TCP only*)	Returns the position index of the first track in the current hours playlist.
EndHourIndex	(serial,script, TCP only*)	Returns the position index of the last track in the current hours playlist.
TrackInfo=	(serial,script, TCP only*)	TrackInfo returns a comma delimited list of track details for 1 or several tracks. The following parameters are required. <i>TrackInfo=this</i> (All tracks in the current hour) <i>TrackInfo=next</i> (All tracks in the next hour) <i>TrackInfo=all</i> (All tracks loaded in the Playlist Viewer) <i>TrackInfo=fromindex-toindex</i> (All tracks between and including the index numbers.) The information returned... <i>Index, TrackType, Artist, Title, Album, Duration, IntroTime, OutroTime, Category, Filename</i>
CheckToggle	(serial,script, TCP only)	Toggle the checkbox of the current focused item between checked and unchecked.
InsertNext	(serial,script, TCP only*)	Insert an audio file after the current track playing. Insertnextn=filename, where n=track type (0=song, 1=spot) eg. InsertNext1=c:\emergency.wav
Run	(serial,script, TCP only)	Run an executable (exe, cmd, bat) file without waiting for the executable to finish. eg. Run notepad.exe "c:\temp.txt". Quotation marks are required around any parameters that contain spaces.

RunWait	(script only)	Run an executable (exe, cmd, bat) file and wait for the executable to finish before proceeding to the next script command.
Cart <i>kFxx</i>	(serial,script,TCP only)	Plays any of the 96 cart slots. The " Cart " prefix is optional and may be omitted. k = m for Main Carts, s for Shift Carts, c for Ctrl Carts, a for Alt Carts. xx = cart slot from 01 to 24. eg. Cart mF10 will play Main Cart 10 (F10 key in Studio). Cart F0 will stop any cart playing.
PlayFile	(serial,script,TCP only)	Plays any file using the cart player. eg. PlayFile c:\spots\spot1.mp3
CartFile	(serial,TCP only*)	Returns the name of the file playing in the cart player.
WaitForCart	(script only)	Wait for any carts playing to finish before proceeding to the next script command.
WaitFor <i>xxxx</i>	(script only)	xxxx = milliseconds. Wait for this length of time before proceeding to the next line in the script. eg. waitfor 1500 will wait 1.5 seconds.
ExitIfTime <i>hh:mm-hh:mm</i>	(script only)	Exit the script and do not process any further commands if the current time is included in the specified time range. Time ranges cannot span past midnight, but 2 ExitIfTime commands may be used to achieve this result. eg. ExitIfTime 10:00-14:00 will stop executing the remaining lines in the script if the time is between 10am and 2pm.
<i>*break note code</i>	(script,TCP only)	Executes a break note code . eg. *H0 will set the Hour Markers option to <i>Ignore</i> . Codes which replace a break note with an audio file such as <i>*Time</i> for a time announcement, is also supported, with the file played using the cart player.
PlaylistFolder	(serial,TCP only)	Sets and returns the Playlist Folder setting in Studio. eg. PlaylistFolder=C:\Playlist .
TopUpFolder	(serial,TCP only)	Sets and returns the Top Up Folder setting in Studio. eg. TopUpFolder=C:\Other Folder . Use a semi-colon to separate multiple folders.
SearchFolder	(serial,TCP only)	Sets and returns the Search Folder option in Studio. eg. SearchFolder=C:\Other Folder . Use a semi-colon to separate multiple folders.
Search=	(serial,TCP only*)	Returns the results of a track search of the Search Folders . The syntaxes are: Search=artist title returns details of a specific song. (= pipe character). Search=*keyword* returns all songs containing this word in the artist or title. Search= returns all tracks in the library. Results are returned in the structure Artist Title Filename
Insert Request=	(serial,TCP only)	Adds a track to the Listener Requests dialog. eg. Insert Request=C:\Music\Beatles - Help.mp3 IP Address Name Location Flag The Name, Location, and Flag fields are optional. Flag=1 will force the track to be added even when the file doesn't exist in the Search Folders .
List Requests	(serial,TCP only*)	Lists the requests not yet played in the following structure. Date Time Artist Title Location
Requests Changed	(serial,TCP only*)	Returns 1 if the request list has changed since the last time Requests Changed was called, otherwise returns 0. This is likely only useful for website scripts to poll Studio every few seconds, and dynamically load List Requests above for the website visitor when it changes.
DelRequest=n	(serial,TCP only)	Deletes a request from the Listener Requests . n is the number of the request as it appears in the list starting with 0 for the first track.
HoldRequest=n	(serial,TCP only)	Places a request on hold in the <i>Listener Requests</i> .
TopRequest=n	(serial,TCP only)	Moves a request to the top of the <i>Listener Requests</i> list.
PlayRequest=n	(serial,TCP only)	Inserts and immediately plays a request from the <i>Listener Requests</i> .
Restart	(serial,TCP only)	Restarts the current playing track from the beginning.
Volx=y	(serial,TCP only)	Adjusts player x to volume y. y is 0 (silence) to 10000 (maximum). Players are 1=Main player, 2=VT player, 3=Cart player 1, 5=Microphone, 6=Line-In, 7=Mixer output, 8=Monitor output.
Volx	(serial,TCP only)	Returns the current volume set for player x

Last	(serial,TCP only*)	Returns the last track played "artist - title"
This	(serial,TCP only*)	Returns the current track playing "artist - title"
Next	(serial,TCP only*)	Returns the next track to play "artist - title"
LastSong	(serial,TCP only*)	Returns the "Last Main Track" from the Studio main window. Excludes short spots.
NextSong	(serial,TCP only*)	Returns the "Next Main Track" from the Studio main window. Excludes short spots.
Stat	(serial,TCP only*)	Returns a combination of five 0's or 1's, where 0=off, 1=on. Digit 1=playing, 2=automation, 3=mic, 4=line-in, 5=paused. For example... 10100 means Studio is playing, automation is off, mic is on, line-in is off, not paused.
Elap	(serial,TCP only*)	Returns the elapsed time of the current track in milliseconds
Rem	(serial,TCP only*)	Returns the remaining time of the current track in milliseconds
Temp	(serial,TCP only*)	Returns the current temperature, a comma, and "feels like" temperature if relevant.
Helo	(serial,TCP only*)	Returns "StationPlaylist Studio vn.nn"
Ver	(serial,TCP only*)	Returns just the studio version "n.nn"
User	(serial,TCP only*)	Returns the current Studio User
Lsnr	(serial,TCP only*)	Returns the current number of internet listeners followed by a "/" and the number of streams that appear to be offline. eg. 75/0
Log	(serial,TCP only*)	Returns the current days Studio log file
Logymmdd	(serial,TCP only*)	Returns the Studio log file for the selected date. eg. Log140621 will return the log for June 21, 2014.
NP1	(serial,TCP only*)	Returns the Primary Output file in the Now Playing system.
NP2	(serial,TCP only*)	Returns the Secondary Output file in the Now Playing system.
Err	(serial,TCP only*)	Returns the last error if any
Errc	(serial,TCP only)	Clears the last error and stops flashing the Errors Occurred button.
(any name)	Run Script	Run a script file which may contain a number of the above functions. The file extension .scp must <u>not</u> be specified as part of the script name.

* These marked functions may also be executed via the [mini web server](#) when no authentication is configured. When a [Password](#) has been specified, all commands are available to the mini web server.

The syntax is:

http://ipaddress:port/?command. For example, http://192.168.1.100/?Helo

http://studio:password@ipaddress:port/?command. eg, http:studio:mypass@192.168.1.100/?AutoOn

Scripts: A script is a file containing any number of the commands above to be executed in a specific order. A script file is usually created using a text editor such as Notepad. A script filename must end in a **.scp** file extension, and the files placed into the [Scripts](#) subfolder under the StationPlaylist\Studio folder.

Two specific scripts are executed by Studio at startup, if they exist.

Startup.scp is executed every time Studio is loaded, either manually or after a computer reboot.

AutoStartup.scp is executed only when Studio is loaded after a computer reboot/login. It will not execute when manually loading Studio.

Any command sent via the serial or TCP port which does not represent a command in the table above will be regarded as a script filename. eg. Sending the text ABCDEF will attempt to execute a script named ABCDEF.scp.

To execute scripts via a *Contact Closure Input* port, the script filename must start with the letter **C** followed by the Input number and a **.scp** extension. eg. **C1.scp**. To execute a script from an *Axia GPIO* port, use *Axiadc.scp*, where *d* is the Input number 1 through 4, and *c* is the input closure number 1 through 5. eg. *Axia13.scp*.

Each command in the script file must be entered on a separate line. A script may execute another script.

Comments may be entered in scripts using `//` before the comment.

Example script:

```
Stop
Cart aF10 // play Alt Cart 10
WaitForCart
Cart sF02
WaitForCart
AutoOn
```

TCP Communications (Pro edition only)

Three TCP servers are built into Studio for communications with other software or devices.

UPnP Port Forwarding: When checked, Universal Plug and Play will be enabled for all 3 TCP servers. A UPnP router will be automatically configured to forward the selected ports to your Studio computer from the outside world.

If your router does not support this feature, you will need to configure the router manually to forward the selected ports to the local IP address of the computer running Studio.

TCP Server: Studio may be controlled via text commands sent via simple TCP, as listed in the [Studio Commands](#) table. Commands must be followed by a linefeed with an optional carriage return character before the linefeed.

The *TCP server* is also used in conjunction with a web server script to operate the online *Song Requester* feature below.

Select the TCP Port which Studio will listen on. The default of 443 may be changed to any valid unused port number.

Text may also be sent to a separate device via TCP using the [*TCP break note](#) code.

Send Response is optional text which will be sent back to the TCP client when the command has been received. Note that the response is sent even if the command is not supported.

IP Restriction: When an IP address is specified, only a connection from this IP will be accepted. This could be your web server IP when used only by the song requester. Multiple IP addresses may be entered, separated by any delimiter such as a comma or space. eg. 123.45.67.88,123.45.67.89

Song Requester:

This is a feature which incorporates the *TCP Server* described above, and a [PHP server side script](#) available for purchase from our website. The script provides the ability for a listener to search or browse your music library via your website, and request one to be played. The requested song is added to a [Listener Requests](#) window available from the *View* menu.

The [Search Folders](#) option on the *Folder Locations* options page determines the songs which are available for requesting using the script. Individual songs from these folders may be excluded from the search results by checking *Exclude from requests* in [Track Properties](#) on the *Categorization* tab.

If the *Search Folders* is empty, the request script reports "Requests are currently disabled" on the web page.

Listener Requests may also be added manually to the list via the [Insert Tracks](#) dialog. This may be useful for requests that are phoned or emailed in.

Requests made are logged in the [Played Log](#) and include the Artist, Title, Filename, IP address, and Name/Location if provided.

The requested songs may be inserted in the playlist automatically or manually. For automated insertion, insert a [*Request break note](#) in your rotations in *StationPlaylist Creator*, in the positions you will accept a request to be played. If a request exists, the break note will be replaced with the first requested song that complies with the settings below, and also the [Studio Track Insert Separation](#) settings on the *Advanced* options page.

Manual insertion of a request is available from the [Listener Requests](#) dialog.

Replace no request will insert a random track from the [Search Folders](#) or [Top Up Folders](#) when a [*Request break note](#) is executed, and no request is available to insert. Generally this option should be disabled when using the *Delete Following Song* option below.

Delete Following Song: When a request is inserted via a [*Request break note](#), and the next track in the playlist is a category track, this track will be deleted. This enables a full hours playlist to be scheduled in Creator, but if a request is made, it replaces a scheduled song. Generally the *Replace no request* option should be disabled when enabling this feature.

Max Search Results: The maximum number of search results sent back to a website visitor when searching the music library. A setting of zero will permit any number of search results. A special search term containing just an asterisk (*) will return all the eligible tracks in the [Search Folders](#) regardless of this setting.

Max pending requests per person: Prevents more requests than that specified by the same listener in the pending requests list. This list contains the tracks requested but not yet played. This is independent of the [Request Script](#) options for the number of requests allowed per hour and per day. This may be useful to prevent someone using multiple IP addresses to make multiple requests.

Max inserts in a row per person: Prevents too many tracks by the same requester being inserted when there are requests from others waiting to be inserted.

Request Delay will prevent a request being played until it has been in the [Listener Requests](#) list for the number of minutes specified. Some online streaming music licences require requests to be delayed.

Insert Request Intros: The folder where introduction spots for requested songs may be inserted in front of requests. When a request is inserted via a [*Request break note](#), an introduction from this folder is inserted above the requested song. Multiple tracks may exist in this folder which are rotated.

If a subfolder exists under the Request Intros folder with the name of the current [Studio User](#), the tracks will be inserted from this folder instead. This enables the voice to change at different times of the day. The Studio User may be changed automatically by scheduling a [*User](#) break note code in Creator.

Studio will first look for a file with the name of the requester in a subfolder called Names. For example, if a requester enters "Jack" into the Name field, and a file named Jack.mp3 or any supported file extension exists in the Names subfolder, Studio will insert and play this track. Otherwise, Studio will insert a random track from the selected folder. This enables audio files announcing the more common first names to be recorded and played.

Multiple files for the same name may exist. An @ character may be entered after the name and anything after that will be ignored. eg. Jack@1.mp3, Jack@2.mp3. These tracks will be selected randomly.

The Names subfolder also works within the *Studio User* folder described above.

UDP Server: Studio may be controlled via text commands sent via simple UDP, as listed in the [Studio Commands](#) table. Commands must be followed by a linefeed with an optional carriage return character before the linefeed.

Text may also be sent to any device via UDP using the [*UDP break note](#) code.

UPnP is not utilized for this server.

Mini Web Server: This server emulates a web server and can serve the Primary and Secondary Output files created by the [Now Playing](#) system, as well as Creator's HTML Playlist, and any other files stored in the HTMLPlaylist subfolder. eg. <http://localhost:8080/nowplaying.html>

For some this may be a more convenient method to display now playing information on the station website rather than using the [FTP Upload](#) feature.

The mini web server can also accept [Studio Commands](#). When no *Password* is specified (below), only the informational commands may be accessed. When a password is specified, all commands are available.

IP Restriction: When an IP address is specified, only a connection from this IP will be accepted. Multiple IP addresses may be entered, separated by any delimiter such as a comma or space.

SSL/TLS encryption: Communications will be encrypted. A self-signed certificate is provided in the StationPlaylist\Data folder with files named cert.pem and key.pem. These may be replaced with one signed by a certificate authority. The private key file must not contain a password.

Password: When specified, the server will require basic authentication. A web browser will ask for a Username and Password. The Username required is always **studio**.

Studio Monitor Server: This is another TCP server which may be used by the [Studio Monitor](#) utility to monitor *Studio*. The utility may be run on the *Studio* PC but is usually run on another PC on the local network or on any PC with Internet access. The monitor shows current track information and can sound a warning or send an email if play stops or the connection is dropped for any reason. If this occurs, *Studio Monitor* can load *Studio* on the monitor PC and start play in automation mode, therefore providing fail safe redundancy. The monitor can also be used to stop play, toggle automation and line input, and reboot the *Studio* PC.

The [Studio Monitor](#) utility can also control *Studio* via command-line parameters. This can be used to control *Studio* via 3rd party software.

All connections and communication errors are recorded in the log file as a *Type 6*. See the [Logging](#) section in the *Operation* chapter.

Enabled: Check the box to accept connections on the specified TCP port.

Port: The TCP port used to establish the connection. The default of 8558 may be changed to any valid unused port number. This should usually match the Port configured in the *Studio Monitor* utility.

Login ID: An ID is required to protect against intruders taking control of *Studio*. This ID must match the *Login ID* specified in the *Studio Monitor* utility. The minimum length of a *Login ID* is 4 characters.

IP Restriction: When an IP address is specified, only a connection from this IP will be accepted. Multiple IP addresses may be entered, separated by any delimiter such as a comma or space.

Port Communications (Pro edition only)

Studio supports 2 way communications with hardware devices via serial port or contact closure boards.

Serial Input/Output: Select the serial port and the configuration settings as required by the external device.

Text may be sent from Studio via the [*S break note code](#). A terminator carriage return and/or line feed is appended to the text based on the *Terminator* option.

Studio may be controlled via a serial device when the *Enable Serial Input* checkbox is checked. The supported commands are listed in the [Studio Commands](#) table.

The [*S break note code](#) can also be used to check/uncheck this checkbox from a scheduled playlist. This may be used to disable control from satellite receivers at certain times of the day, for example.

[Now Playing](#) information may also be sent to a serial device at each change of track.

Check the *Log Activity* checkbox to write all input and output communications to the [Played Log](#) file.

Contact Closures: Studio supports some contact closure boards and audio switches. A good value board is available from [Easy-Driver I/O Boards](#) specially designed for Studio. It is [Broadcast Tools](#) (PIP protocol) compatible but with 8 input and 8

output closures on the same board, and much less expensive.

For 16 inputs/outputs, the GPI-16 or SRC-16 boards from [Broadcast Tools](#) are supported. The SRC-4 is also supported.

The same device, or two separate devices may be used for Output and Input closures.

Contact Closure Output: Studio can set closures on a board supporting input commands. Any of the 8 or 16 closures may be changed via a [Break Note Code](#). This may be used to control an audio switcher to switch between different audio sources, for example.

Initial Closure State: The checked closures will be closed when *Studio* is loaded. Only the first 8 closures can be preset.

Refresh Ports: Closes any open ports and adds any newly connected devices to the Port drop down options.

Contact Closure Input: Studio can detect closures on a hardware device supporting output closures.

With the exception of *Toggle Closures*, Studio will activate the relevant function when a closure changes from unlatched/open to latched/closed. Nothing will occur when switching from latched to unlatched, similar to pressing a key momentarily on a keyboard.. However, *Toggle Closures* can be either *Maintained* or *Momentary* as discussed below.

Enable Port: Select the closure board from the drop down list. Detection of all inputs can be enabled/disabled manually via the checkbox, or via the *G0 [break note code](#) to enable at different times of the day.

Inputs 1-8: Individual inputs can be enabled/disabled manually via the checkbox, or via the *G [break note code](#).

The first 8 closures may have specific functions assigned using the drop down list. Selecting "*Script*" will execute a script file C1.scp through C8.scp based on the input number. Boards with 16 closures may use closures 9 through 16 to run a Script file - C9.scp through C16.scp.

The supported functions and script details are described in the [Communications](#) chapter. Some of the toggles are unique to the *Closure Inputs*, such as *Line-In/Automate Toggle* which will stop play and switch line input on when latched, and switch line input off and automate on when unlatched. This may be useful for EAS emergency alert systems using one maintained contact closure.

Toggle Closure Type: This controls only the Toggle Closures such as *Play/Stop Toggle* and *Automate Toggle*.

Maintained: The selected toggle functions will be switched on when the closure is latched, and off when unlatched. For example, *Play* will start when latched and *Stop* when unlatched.

Momentary: The selected functions will work like non-toggle functions and switch state when a closure changes from unlatched to latched. Nothing will occur when switching from latched to unlatched. For example, one latch/unlatch could start play and another latch/unlatch will stop play.

Axia Livewire GPIO (Pro edition only)

Studio supports 2 way communications with an Axia Livewire device utilizing up to 4 ports.

In addition to the input relay detection below, each of the 5 relays on each port may be controlled by Studio using the *AxiaGP [break note code](#).

Axia IP Address: The IP address of the Axia Livewire GPIO device to communicate with.

Delay: Activation of all input functions will be delayed by this value in milliseconds.

Enable Port: Select an Axia GPI/GPO port from the drop down list to detect changes to the relays. Detection may be enabled/disabled manually via the checkbox, or via the *Axial [break note code](#) to enable at different times of the day.

Inputs 1-5: With the exception of *Toggle Closures*, Studio will activate the selected function when a closure changes from unlatched/open to latched/closed. Nothing will occur when switching from latched to unlatched, similar to pressing a key momentarily on a keyboard. However, *Toggle Closures* can be either *Maintained* or *Momentary* as discussed below.

Selecting "*Script*" will execute a script file named *Axiadc.scp*, where *d* is the Input number 1 through 4, and *c* is the input closure number 1 through 5. eg. *Axia13.scp*.

The other supported functions and script details are described in the [Communications](#) chapter. Some of the toggles are unique to the *Axia Inputs*, such as *Line-In/Automate Toggle* which will stop play and switch line input on when latched, and switch line input off and automate on when unlatched. This may be useful for EAS emergency alert systems using one maintained closure.

Toggle Closure Type: This controls only the Toggle Closures such as *Play/Stop Toggle* and *Automate Toggle*.

Maintained: The selected toggle functions will be switched on when the closure is latched, and off when unlatched. For example, *Play* will start when latched and *Stop* when unlatched.

Momentary: The selected functions will work like non-toggle functions and switch state when a closure changes from unlatched to latched. Nothing will occur when switching from latched to unlatched. For example, one latch/unlatch could start play and another latch/unlatch will stop play.

StationPlaylist Request Script v3.4

USER GUIDE

What is the StationPlaylist Request Script?

The StationPlaylist Request Script provides listeners of your stream the ability to search your music library and send a request to your station, right from your website. But it doesn't stop there. In addition to submitting a request, visitors can view upcoming requests as well. Further, an advanced function will randomly select names of some of the artists you have in your music library, and provide search links for you to place on your homepage. An option to place the search box on other pages of your website is also provided.

This script queries your StationPlaylist Studio Pro for the information needed, and visitors can interact to send their request to StationPlaylist Studio Pro from your website. From there, you will decide how you want to act on that request.

This script is only compatible with the Pro edition of Studio.

The PHP Request Script is available for purchase from the [StationPlaylist](#) website.

See the [TCP Communications](#) chapter for Studio configuration requirements.

SCRIPT REQUIREMENTS

To use this script, you will need StationPlaylist Studio Pro 5.01 or later and a web server running PHP 5. You will also need your StationPlaylist Studio Pro on a computer that is publicly accessible to the internet for both incoming and outgoing connection on a port you specify. The script will need to access this same port as well. If your ISP or web host blocks the port you specify on any part of this connection, the script will not be able to talk to StationPlaylist and it will not function at all.

GETTING STARTED

These next few steps should get you started with the basic setup in about 10 minutes.

1. Unzip the zip archive file to a folder on your local PC. Inside you will find the following files:

```
build.php
config.php
footer.php
function.php
header.php
reqform.php
reqline.php
request.php
style.css
```

2. Open the config.php file in a text editor such as notepad.
You will need to edit the following lines:

```
$studiohost = "127.0.0.1"; // Domain name or IP address of the Studio TCP Server  
$studioport = 443; // Port# assigned in Studio to listen for commands
```

Replace 127.0.0.1 with your publicly accessible IP address. This is the IP allocated by your internet provider. Ideally this should be a static IP. If your internet provider uses dynamic IPs, you can likely purchase a static IP from them. Alternatively there are free or inexpensive solutions using dynamic domain name services.

Make sure that you specify the same port as Studio Pro is configured to listen on.

Note 1: It is recommended that you choose a port not commonly used by other applications.

Note 2: Some website hosts only have ports 443 and 80 open for outbound script connections.

Note 3: Some ISP's block inbound connections on port 80.

3. If you are behind a router, Studio will attempt to configure the router using UPnP to forward the selected port traffic to the correct computer. In some cases UPnP is disabled in the router or doesn't work well and the router will need to be manually configured to forward traffic on the selected port to the private IP of the computer on which Studio Pro is running. Please reference your router's documentation.

4. Upload the above files to your webroot directory. Once this is done, you should be able to access the request script by going to www.yourdomain.com/request.php where www.yourdomain.com is the actual domain of your website.

You can test the installation of the script by browsing to the above address.

If successful, you should see "No pending requests" under the Pending Requests heading.

If you see an error message instead, then please read the [troubleshooting](#) section on installation below.

USING THE SCRIPT

You can test the communication with Studio Pro by performing a search for an artist or song title you have in your collection.

1a. Type part of an artist's name or song title in the search box and click search.

1b. Or click a letter of the alphabet to browse tracks with artists beginning with that letter.

2. Choose your request from the list by clicking the radio button next to your selection. This is a round circle to the left of the artist name.

3. Click the "submit your request" button.

Once submitted, the page should display your request in the pending request list. Also, inside Studio Pro, pressing control+q will show you the pending requests.

PERSONALIZATION

Now that you have the script working, you may want to personalize it to integrate with your station's website. There are a few basic configuration options you can use to do this and some advanced functions available for integrating with other pages of your website.

BASIC CONFIGURATION

To configure the basic settings, perform the following steps:

1. Using a plain text editor like Notepad, open the config.php file in the folder where you unzipped the scripts and find the following lines.

```
$namefield = 1; // Request listener name: 0=no, 1=yes, 2=required
```

This line indicates whether or not you want the persons name, and if it is required. If you change this option to 2, then a request can not be submitted if there is no name in this field. A 0 hides the name field, and a 1 shows the name field.

```
$locationfield = 1; // Request location: 0=no, 1=yes, 2=required
```

This line works like the previous line, and is used to gather the listener's location, such as neighborhood, city, state, etc.

```
$expire = 7; // Number of days to remember name and location. 0=just for the session
```

This value specifies the number of days to remember the name and location as described above. The expiration date is extended each time the script is run, so the script will autofill the name and location fields each time it's run within the specified period. If the value is set to 0, it autofills during the current browser session.

```
$requestsperhour = 4; // Max number of requests allowed per hour for each listener
```

This indicates the maximum number of requests per hour you allow from each computer which is accessing your site. If you set this to 5, that computer can make 5 requests per hour.

```
$requestsperday = 12; // Max number of requests allowed per day for each listener
```

This value limits the number of requests per day.

If you set this to 10, then the computer can only submit 10 requests per day.

```
$sitename = ""; // Insert your station name between the quote marks
```

The text between the quotes here will be used wherever this script references your station's name.

```
$home = "/"; // Used to link to your homepage
```

This is usually accurate, unless you are using a subdirectory for this script. If you are not sure if you need to change it, try the link when the scripts are installed, and change this value if necessary.

```
$css = "style.css"; // Filename of an optional style sheet
```

This references a style sheet. You can specify one you are already using for your website, or simply edit the included file to achieve the look you desire.

```
$header = "header.php"; // Filename of an included header file (file may include PHP code)
```

```
$footer = "footer.php"; // Filename of an included footer file (file may include PHP code)
```

You can edit these lines to specify a header and/or footer file you are using, or edit the included files that are in the zip archive. The header will appear at the top of the request page and the footer will appear at the bottom of the page.

```
$script = "request.php"; // Name of request script. Change this if file is renamed.
```

Change this if you rename the request script or locate it in a subdirectory. e.g., If you place this script in a subdirectory called request and rename it to index.php, specify "request/index.php" in the above line.

```
$banfile = ""; // Name of ban file (optional). One IP per line.
```

Optionally, you can specify a ban file containing banned IP addresses, one IP address per line.

Banned IP addresses will not be allowed to use the request script.

Type the filename, including path if applicable, between the quote marks.

```
$buildlib = 0; // Hours between local library rebuilds. 0=disabled, -1=manual rebuild
```

The alphabet browse feature can download a lot of information from Studio. This may be a problem for slow internet connections. If clicking a letter of the alphabet takes too long, set this option to a non-zero value and the script will utilize a copy of the track library stored on the web server.

This data needs to be downloaded from Studio periodically, often once a day. Set to a positive value, the request page will rebuild the library when a visitor loads the request script and the library has not been rebuilt for x hours.

Set to -1, build.php needs to be run manually or by some other method, such as a scheduled task on the web server.

```
$libdir = "library"; // Directory containing library files. Empty string "" to disable.
```

If you've enabled the local library feature described above, you can specify a folder name in which these files will be stored. The default is to store them in a folder called "library" but this can be changed. If no folder name is supplied (nothing between the quote marks) then the files will be stored in the folder with the request script.

2. Once you have modified the request script's config.php file, re upload it to your web host. You can verify the changes by viewing your site. Please be sure to use the features that you have on the site, including the ones that you have changed. Note that the request limits may not take effect until the currently set limits expire.

ADVANCED CUSTOMIZATION

This section explains advanced features of this script intended for users who are very familiar with their web environment. You need to know how your web site is constructed and how to work with html and PHP to take full advantage of these features.

Any page implementing one or more of these features must be treated as a PHP script by your web server. In nearly all cases, this is accomplished simply by giving the file a .php file extension.

As a reminder, the request script and accompanying document is provided as is, and no support for your web server is provided by StationPlaylist.

PLACING COMPONENTS ON OTHER WEB PAGES

You may wish to place the pending requests list or the request form somewhere else on your site. To do this, you will need to know how to insert code snippets into your web pages.

To use any of these advanced features, you will need to insert the following 2 lines at the top of the page:

```
<?php include ("config.php"); ?>
<?php include ("function.php"); ?>
```

If the request script resides in a subdirectory under the page to which the component is being added, the above specifications must include the path, i.e., request/config.php for instance.

ADDING THE SEARCH FORM

Paste the following line at the point in the webpage where you want the form to appear.

```
<?php include ("reqform.php"); ?>
```

Again, prepend the path if the request script resides in a subdirectory.

ADDING RANDOM ARTIST SEARCH LINKS

You can have the script return a group of search links for randomly selected artists. To do this, insert the following line at the top of the page below the 2 include statements described above.

```
<?php $links = getartistlinks ($showmany=3); ?>
```

The value specified after the \$showmany= indicates the number of links you want returned. In the above line, this value is 3, but it can be any integer greater than 0 and less than the total number of artists in your music library.

Then, where you want the links to appear, you will place the following lines in your document:

```
<? php Echo .$links[0]; ?>
<? Php Echo .$links[1]; ?>
<? Php Echo .$links[2]; ?>
```

Each line will give a different artist link. This is set up so that you can use each line to fill in the name of a random artist in a sentence or paragraph. All you need to do is insert one line at each point where you want to fill in an artist. Note that the indices [between the brackets] begin with 0 rather than 1, so in our example, there are 3 links returned, indexed as 0, 1, and 2.

The links, when activated, will perform a search for those artists on the search page.

DISPLAYING THE PENDING REQUESTS

To display the pending requests, insert the following line at the point where you want to put the list of pending requests.

```
<?php echo listrequests ($studiohost, $studioport); ?>
```

Troubleshooting

Here are some troubleshooting tips to help you diagnose some common configuration problems.

TIMEOUT ERROR

If you see a timeout or other error displayed under the pending request list, it means that the script is unable to communicate with StationPlaylist Studio Pro. There are a number of possible reasons for this. Check the following:

- * Make sure the IP address you specified in the config.php file is the public IP address of the computer on which Studio Pro is running. The local IP address will not work.
- * Verify that the port specified in the config.php file is the same as the port configured in the TCP settings of Studio Pro.
- * Confirm with your ISP and web host that you are allowed to open the port you have chosen and that it does not conflict with other port usage on the server.
- * Make sure that the port being used is not blocked by any firewall.
- * If the computer running Studio Pro is connected to a router, be sure that port forwarding has been set up properly.

PHP ERRORS

If you see some sort of PHP error in the request.php file, it likely means that the file has been corrupted somehow. Try reuploading the original file from the zip archive.

If this problem occurs after a script update, make sure that all changed files associated with the script have been uploaded. These would include request.php and function.php. If the update requires that config.php be uploaded, make sure all configuration items have been modified appropriately in the config.php file prior to uploading. The following files are provided as templates and need not be uploaded with new updates:

header.php
footer.php
style.css

Likewise, the reqform.php file simply contains the search form and will probably not require any updates.

If PHP errors occur in files other than those distributed with the script, (files you are adding advanced features to) check the inserted code snippets to make sure they are complete and that no typographical errors have been introduced into the code. Also make sure that file paths have been inserted if applicable.

SUPPORT

If the answer to your question or solution to your problem is not found in this document, support is provided through the StationPlaylist discussion group. You may join the StationPlaylist discussion group via email by sending a blank email to:

StationPlaylist-subscribe@yahoogroups.com

Or visit the discussion group website:
<https://stationplaylist.com/discussion>

Copyright 2010-2013 by Jeff Harris - Jeff@HookedOnThe.Net
For script version 3.2 - 2013-02-24